

SOAP

with which is included an

Insecticide & Disinfectant Section

Published by MACNAIR-DORLAND COMPANY, INC., 136 Liberty Street, New York

VIRONES

(IONONES)

Made in U. S. A.

Virone 100%

Virone Alpha

Virone Beta

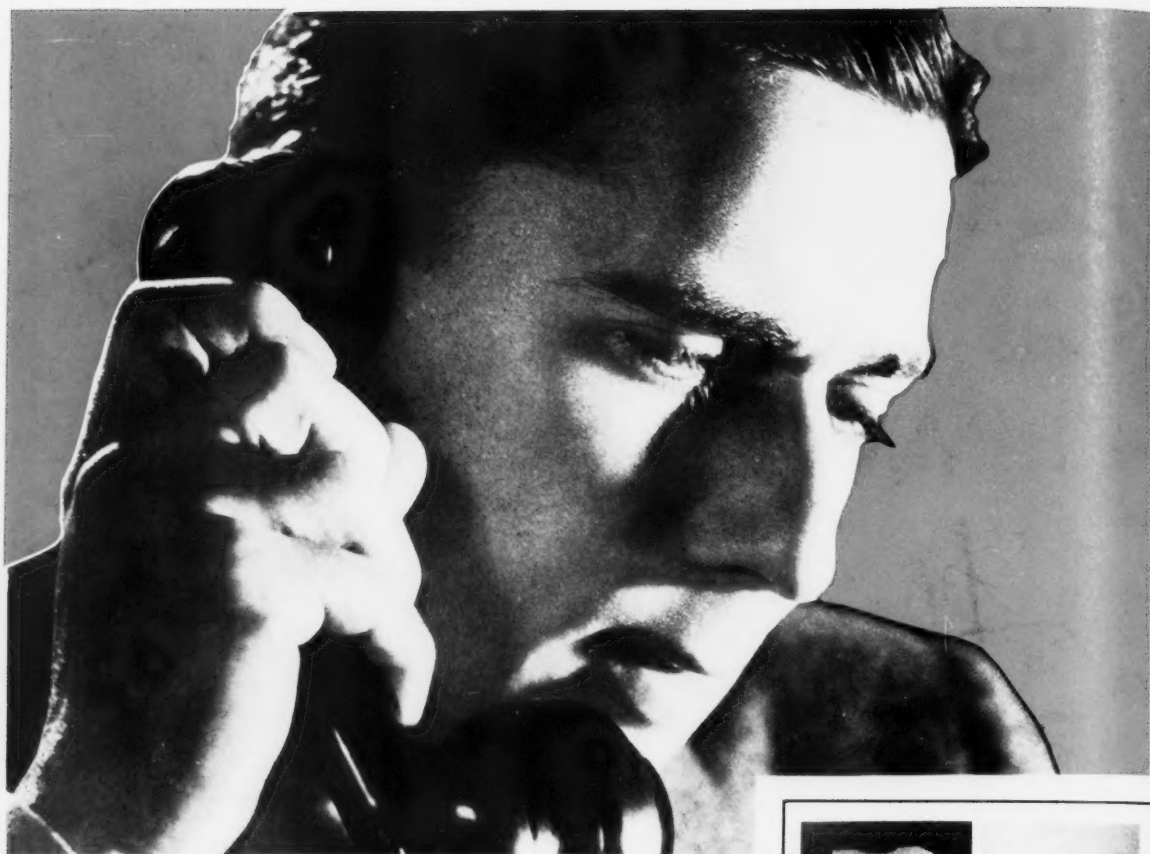
ALTHOUGH raw material cost of these splendid ionones has advanced 200 per cent, we can for a short time continue to supply them at the old price. Particularly useful for perfuming fine soaps and creams. We suggest that you look into this price situation now, and also let us send you samples.



UNGERER & CO.

13-15 West 20th St.

New York



“ — and be sure
it's **FALCON!** ”

EVERY DAY, more and more buyers are asking for Falcon Deodorants by name—and insisting on getting Falcon.

They have learned that Falcon Blocs and Blockettes contain the fine essential oils so necessary for pleasing and lasting odors. They know too, that Falcon Deodorants are made by the original Falcon method of moulding—cold—under tons of pressure, which insures uniform evaporation and longer service.

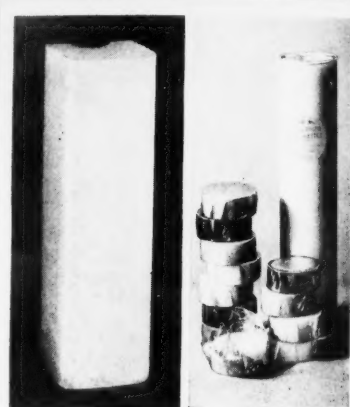
Be prepared to supply your customers with Falcon Deodorants. They cost no more than the ordinary kind and you will find them dependable and profitable. Write for prices today.

EAGLE SOAP CORPORATION

25 E. JACKSON BLVD.

--

CHICAGO, ILL.



**FALCON
DEODORANT BLOCS**

Falcon Blocs are individually wrapped in cellophane and packed 6 Blocs to a set, Size 7½"x2½"x2½" and weigh 25 ounces each. Choice of Cedar, Lilac and Rose odors.

**FALCON
DEODORANT BLOCKETTES**

Falcon Blockettes are attractively packed, twelve 4 ounce blockettes to the tube and twelve tubes to the case. Obtainable in Cedar, Lilac and Rose odors.

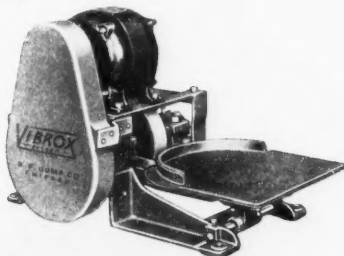
FALCON DEODORANTS

COSTLY, BOTHERSOME PACKING PROBLEMS ELIMINATED BY **VIBROX** PACKER



No. 50M VIBROX BARREL PACKER. A self-contained unit for packing containers weighing up to 450 lbs. Shipped complete with 1 H. P. motor, "V" Belt Drive and guard, ready for installation.

Small VIBROX PACKERS. No. 10M for cns, cartons, boxes and bags from 5 to 12 lbs. No. 20M for containers from 15 to 75 lbs. Shipped complete with fractional horse power motor, "V" Belt Drive and guard, ready for installation.



VIBROX PACKERS eliminate slow, costly packing operations. There are no clutches to throw. There is no starting or stopping to retard production. The VIBROX operates continuously and packs the material as it falls from the automatic scale or spout. No manual jiggling or shaking necessary. All the operator does is to place the empty barrels on the platform and remove the filled and packed ones.

In addition to faster and more economical packing, VIBROX PACKERS also make possible the packing of more material in the same size container or allow the use of smaller containers. The saving in container costs alone will pay for the machine in a short time.

No matter what size container you are using, from 5 lbs. upward, if the material you manufacture is dry and will compact of its own weight when submitted to an oscillating and vibrating motion, the VIBROX PACKER will show startling economies in packing, container and shipping costs.

A well known chemical company ordered their first VIBROX BARREL PACKER (on ten days trial) some time ago. Since then we have received their repeat orders for five additional machines. The following statement from them is evidence of the efficient and satisfactory performance of VIBROX PACKERS:

"We are pleased to state that we have found your VIBROX BARREL PACKERS to be very satisfactory. We use them for packing fluffy materials, and we find that the capacity of the containers is considerably increased through the use of same. They are of rigid construction and stand up well under exacting service."

Why not install a VIBROX PACKER in YOUR plant on ten days trial? See its performance. Note the savings. Check the results. If, at the end of the trial period, you are not entirely satisfied, you may return the machine to us for full credit.

B.F. GUMP Co.

Established 1872

**MIXING, SIFTING AND PACKAGING
EQUIPMENT**

424-430 S. CLINTON STREET
CHICAGO, ILL.

Announcing



A SUPERIOR SOAP GERANIOL

BY

du Pont

SEND COUPON FOR FREE SAMPLE

An inexpensive, dependable Geraniol has been the goal of the soap industry for years. Here it is—Du Pont Soap Geraniol. This new aromatic is the result of many months of unceasing testing and retesting, blending and reblending by Du Pont chemists until a superior Geraniol was produced.

It is a scientifically made product of fairly high alcohol content. Its color is light amber. Its odor sweet

and pungent, and exceptionally uniform.

Actual working tests in soap show Du Pont Soap Geraniol exhales an agreeable rosy odor even when used in small quantities. In a bouquet it produces that desirous velvety note for which the soap maker strives.

The coupon will bring you free sample to test in your own laboratory. Mail it today and prove for yourself that Du Pont Soap Geraniol is a superior Geraniol.



AROMATICS

E. I. DU PONT DE NEMOURS & CO., INC.
Organic Chemicals Department S-9
Fine Chemicals Division, Wilmington, Del.

E. I. DU PONT DE NEMOURS & CO., INC.
Organic Chemicals Dept., Fine Chemicals Division
Wilmington, Delaware

Gentlemen—I'm anxious to try your new DU PONT
SOAP GERANIOL. Please send me a sample free.

Name
Address
City State

SOAP

Reg. U. S. Patent Office

Volume IX
Number 9

September, 1933

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OUT WHERE THE
Sales
ARE MADE



Is your closure a Help or a Handicap?

IN today's fierce battle for sales, oftentimes the inherent merit of a product is secondary to its package appeal. Using closures that merely "get by" is a business risk that few can afford to take. ♦ Closures that give your product full protection—that add to the attractiveness of your package—that are convenient for consumers—are of real help in winning public favor and profitable repeat business. Closures that do not perform their full duty throughout the life of the container can prove a costly handicap to

sales. ♦ You can make sure of the *right* closure for your product by entrusting your sealing requirements to C. C. & S. Long experience with many kinds of products has taught us a lot about the behavior of closures under all sorts of conditions and the requirements they must meet to be thoroughly satisfactory. You will find this experience most valuable in obtaining closures that are of real help in promoting your sales.

*Samples, information and prices
any time you wish.*



Use this 7 POINT SERVICE
EFFECTIVE SEALING, SUITABILITY FOR
PRODUCT, EASY APPLICATION, EASY RE-
MOVAL, BEAUTIFUL DECORATIONS, DE-
PENDABLE SUPPLY, NATION-WIDE SERVICE

TO OBTAIN THE RIGHT
CLOSURE FOR YOUR PRODUCT



CROWN CORK & SEAL CO. Baltimore Md.

WORLD'S LARGEST MAKERS OF
CLOSURES FOR GLASS CONTAINERS



It's all in the CAP

QUALITY SANITARY SPECIALTIES

New NOPCO Auto Polish Proves a Quick Seller



SALES went up 45% last month! That indicates how Nopco 1669 Auto Polish has caught on — with the public — and with the jobber and dealer as a profit-maker!

Repeat orders are quick and steady, because Nopco 1669 offers these four advantages: (1) It can be easily applied either to part or to the whole of the car before polishing off. (2) It is both a cleanser and a polish. (3) It leaves a high lustre and a clean, glistening surface. (4) It's economical.

Offered only to the trade, in bulk. It's a quick seller and sure-fire repeater, with attractive profit possibilities.

FURNITURE POLISH

Nopco 1716-AL-2

An improved furniture polish that actually cleans as it polishes. It adds a rich, lustrous film and leaves no trace of oiliness or greasiness. Easy to apply and economical. A popular seller.

PINE OIL BASE

Nopco Albasol AR

An excellent base for making soluble pine oils for spraying, disinfecting, and insecticide purposes.

RUBLESS FLOOR WAX

Nopco 1725

A liquid floor wax that dries to a lustrous, durable film. Its water-resistant properties compare favorably with solvent wax solutions. A stable emulsion.

LIQUID SOAP BASE

Nopco Kokobace

A high grade, concentrated cocoanut oil potash soap. Used extensively for making perfumed soaps and shampoos.

NOPCO quality products are always uniform and of unvarying standards. This means complete satisfaction to ultimate consumer. Write for full information about the products in which you are interested.



NATIONAL OIL PRODUCTS COMPANY

Boston

Chicago

HARRISON, N. J.

San Francisco Hamburg, Germany

September, 1933

Say you saw it in SOAP!

7

**THE FIRST, AND
STILL THE FIRST**

Niagara
CAUSTIC POTASH



Niagara Alkali Company was the first, in this country, to manufacture Caustic Potash. Our many years of development, experience and increasingly expert control have produced a grade of potash which is the finest obtainable here or abroad.

Caustic Potash is difficult to produce in a pure state. For a safe, consistently excellent quality, specify *Niagara*.

NIAGARA ALKALI COMPANY

Associated with Electro Bleaching Gas Co.
Pioneer Manufacturer of Liquid Chlorine

9 East 41st Street, New York, N. Y.



"CONGRATULATIONS, Bob, I think this is the biggest commission check you've earned in years. It looks like the N R A is ringing the bell for all of us."

BOB. "Guess you are right again, boss, tho' those new Clifton Products you added to the line helped out a lot, too."

Is there a "Bob" on *Your* salesforce?

● **F**RANKLY we never yet bunked into a sanitary supply salesman (or any other for that matter) who didn't like to get a nice fat commission check every week.

Of course the last few years have been pretty rough sledding. But now that skies are brightening, customers are in a happier frame of mind and have *MORE* money to buy sanitary supplies.

Sell while the selling is good! Further encourage your salesmen by adding a few additional long profit items to your line.

You'd be surprised how your sales will jump—particularly **NOW**.

Clifton Products are not merely *low in price*, but sound . . . substantial . . . *value* as well.

Circulars and imprint labels are all ready for you. There's no obligation. Inquire **TO-DAY**.

CLIFTON CHEMICAL CO., INC.

CLIFTON BUILDING, 246 FRONT STREET, NEW YORK CITY

"Quality Sanitary Products Since 1912"



TEAR OFF AND MAIL THIS COUPON

Clifton Chemical Co., Inc.
246 Front Street, New York City.

Your plan is worth looking into. The items checked would probably help increase our sales. Please quote:

- | | | |
|---|---|--|
| <input type="checkbox"/> Semi Castile Liquid Soap | <input type="checkbox"/> Deodorizing Block Containers | <input type="checkbox"/> Bar Oil |
| <input type="checkbox"/> Liquid Soap Base | <input type="checkbox"/> Rub-No Wax | <input type="checkbox"/> Coal Tar Disinfectant |
| <input type="checkbox"/> Liquid Soap Dispensers | <input type="checkbox"/> Silver Floor Paste | <input type="checkbox"/> Pine Tree Disinfectant |
| <input type="checkbox"/> Metal Polish | <input type="checkbox"/> Liquid Floor Cleanser | <input type="checkbox"/> Shampoo Liquid and Base |
| <input type="checkbox"/> Deodorizing Cakes and Blocks | <input type="checkbox"/> Oil Soap | <input type="checkbox"/> Shaving Cream |

(NAME)

(ADDRESS)

FELTON'S AROMATIC CHEMICALS

A Standard of Perfection that knows no Duplication

Unexcelled
QUALITY

Dependable
UNIFORMITY

Swift
SERVICE

Modern
ECONOMY



FELTON Aromatic Chemicals have firmly established themselves in the consuming industries because of their uniformly high quality backed by many years of uninterrupted service to our customers.

OF the large number of aromatic chemicals manufactured at our plant in Brooklyn, N. Y., the following are of especial interest to the soap maker:

AMYL CINNAMIC ALDEHYDE
GERANIOLS
GERANYL ACETATE
ISO BUTYL PHENYL ACETATE
ISO BUTYL BENZOATE

LINALOOL
METHYL PARA CRESOL
METHYL ISO EUGENOL
RHODINOLS
TERPINEOL ABSOLUTE

*It will pay you to investigate FELTON AROMATICS.
Write for samples — specifications — quotations.*

FELTON CHEMICAL COMPANY, Inc.

Executive Offices and Factory—599 JOHNSON AVE., BROOKLYN, N. Y.

Chicago, Ill., Office—1200 NORTH ASHLAND AVE.

Stocks Carried in the Following Cities:

LOS ANGELES, CAL.
WM. FAUER,
1131 N. Orange Grove Ave.

SAN FRANCISCO, CAL.
A. H. DOREMUS,
1282 Folsom St.

CHICAGO, ILL.
M. HARTSTEIN,
1200 No. Ashland Ave.

NEW ORLEANS, LA.
ROBERT E. FELTON,
Balter Bldg., Rm. 407



● The trouble is that some of those codes and things that Mr. Blivitz is worrying about never will get completely settled—at least not for a long time. He wants to get the business back on its feet before he takes up a *little detail* like a closure.

A little detail? The strange fact is that in many, many cases this little detail is actually of more real basic importance and is more urgent than anything else that could possibly occupy his time. The wrong type of closure strikes at the very heart of a business—it may affect product quality, injure consumer good will, prevent resales, act as a drag on sales activity, cause dealer dissatisfaction, and result in complaints, returns and losses.

The bright side of the picture is that the adoption of the proper type of closure—one that gives full protection, that is good-looking, and that helps sales—is an equally posi-

tive factor in creating good will and building a permanent customer following.

★ ★ ★

Anchor is well qualified to recommend the exact type of closure that best fits your package and your merchandising conditions. Our nineteen different styles and types of closures makes it possible to supply the type you need without fear or favor.

ANCHOR CAP & CLOSURE CORPORATION
Long Island City, N. Y. • • • Toronto, Canada
BRANCHES IN ALL PRINCIPAL CITIES

"So he wants to talk about closures, does he? Now listen, Miss Schnitzelbaum, let me tell you for the last time that I won't see anybody until I get some of these *important* things settled."

IT WON'T COME OFF . . . IT CAN'T GET LOST



ANCHOR TURRET TUBE

WITH CAPTIVE MOLDED CAP

WHY IT *Helps* SALES

THE FIRST INCH of the product that comes out of an Anchor Turret Tube is fresh as a daisy; as moist and as creamy, as clean and as antiseptic as the maker wants it to be. Why? Because these tubes are hermetically sealed at *both* ends. The top of the tube has no open aperture—just a thin spot that the user punctures with a puncturing peg supplied—an easy, simple thing to do.

SIMPLER THAN turning on a water faucet is the best way to describe how a Turret Tube operates. A twist with the fingers, a squeeze, a twist back again—and it's all over. The user can't help doing it correctly and without lost motion, because an automatic stop makes him stop turning the cap when the holes (in the cap and in the top of the tube) are exactly in line. In closing the tube there is another stop; in either case a half turn is all that is necessary, and in fact all he's allowed to do anyway.

THE LAST INCH of the product is just as good as the first. All along it has been protected because the cap stays right in place all the time. No lost caps, no liners to drop out or to stick to the top of the tube.

THAT EARLY MORNING FOG is a bad time to have to fool around with one of the general run of tube caps. They just will drop to the floor or down the drain. They will get knocked off the shelf and roll away into inconvenient corners, or get mislaid somehow. A very near-sighted man, who naturally has to remove his glasses to

shave, has congratulated us on this very point. It's a boon, he says, to the blind and near-blind, and will save him many an extended search. In any event, it's hard for fumbling fingers to match the threads and fit the cap back on the tube again.

Not so with the caps on Anchor Turret Tubes! Here they are permanently attached, securely locked onto the top of the tube by a little projecting shoulder. It's shown in the illustration below, if you are interested in seeing it.

LOOK AGAIN AT ITS LOOKS, observe what a fine finishing touch this uniquely designed cap gives to any tube. It has distinctiveness written all over it. It's a stylish, substantial looking, efficient device—one that is certain to attract attention—and favorable attention, we mean—from consumers wherever they see it.

IT SPEAKS for itself, this new Turret Tube. All you really need to do to be convinced that it would make a big improvement in your packages, as well as in your sales, is to let us send you a few samples. After even a casual examination, and certainly upon using it yourself for a while, you cannot fail to recognize its four main advantages, namely:

1. The complete protection it gives the product from the time it leaves your plant until the last of the product is used up.
2. Its extraordinary convenience for those friends of yours... the gentle public that buys your product.
3. The elimination of the removable screw cap with all its grief.
4. The plus value it gives your product, a value you can exploit and promote... an active force in creating good will... a feature that gives you a decided edge over competing products.

CUTAWAY VIEW OF THE TOP OF TUBE AND CAP CONSTRUCTION

Note in the illustration to the right the generous sized aperture in the cap from which the contents are ejected. This view shows the cap in an open position, lined up with the aperture.

Just below this aperture you can plainly see the projecting shoulder or ledge that bulges outward. This projection extends around the entire circumference of the top of the tube and is formed in it by a separate manufacturing operation after the cap is in place. It securely locks the cap on the tube, yet allows it to rotate freely.

Note also the lug (directly above the arrow) which prevents the turning of the cap beyond a specified point, thus providing the automatic stop that contributes so much to the unusual and welcome convenience of the Anchor Turret Tube.

**A turn and
it's open..**

**A turn and
it's closed**



EACH WITH A JOB TO DO

● If a single one of these different styles of Anchor Closures could be eliminated, it would be foolish not to do so—for much money could be saved. But each of Anchor's nineteen different styles has its own particular job to do, its own special advantages for certain products and under particular conditions.

● This complete line of caps is one of the very definite reasons for doing business with Anchor. The mere fact that all these other types and styles exist gives greater value to the cap selected for your products—because of the assurance it gives of correct design and perfect adaptability to meet *your* conditions.



Anchor Cap and Closure Corporation

22 Queens Street

BRANCH OFFICES

Long Island City, N. Y.

Atlanta • Boston • Chicago • Cleveland • Detroit • Houston • Los Angeles • Louisville
Montreal • New York • Philadelphia • Pittsburgh • Rochester • San Francisco • St. Louis • Toronto





GERANIUM ARTIFICIAL GERANIOLS

for Soap Perfume

With the market for natural geranium oil in its present unsettled condition, the above products should be seriously considered by the soap manufacturer. Both work excellently in soap and will provide the geranium note at a cost which will be reasonable and at the same time stable. May we submit generous working samples?

PERFUME SPECIALTIES

In our laboratories, we have facilities for manufacturing a complete line of compounds for soaps of all kinds, theatre sprays, para products, polishes, fly sprays, etc. Besides our standard perfume specialties, we can make up individual odors to suit your needs. It will cost you nothing to investigate the possibilities of these products. What are your problems?

SOAP SPECIALTIES

By Tombarel, Grasse, France

Resinoids

Tombarel Freres produce a complete line of resinoids, all very interesting bodies for soap perfume. Resinoids not only give character to soap odors, but also act as fixatives.

Lavender, Absolute
Oil Vetivert
Oil Geranium

also headquarters for

RHODINOL-S

IONONE SAVON

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LABDANUM CLARI-S

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Telephone—TRinity 6894

Main Office
11 E. Austin Ave.
CHICAGO

Telephone—SUperior 1203

New York Office
114 East 25th St.
NEW YORK

Telephone—GRamercy 5-0928

Monsanto



EVERY step—from extensive research to the prompt handling and shipping of finished products—is carried out with characteristic thoroughness and efficiency within the Monsanto organization. The result is *satisfaction* for buyers specifying Monsanto Chemicals.

Products for soaps and sanitary specialties include:

Coumarin Monsanto
Methyl Salicylate Monsanto
Phenol U. S. P.
Cresylic Acid
Santochlor
(Pure Paradichlorbenzene)

Manufactured by

Monsanto Chemical Company
St. Louis, U.S.A.

New York • Boston • Chicago • San Francisco • Montreal • London



Chemicals



"BEAMAX" **DRIES TO A LUSTRE** **LIQUID** **WAX**

**does not require
polishing...**

"BEAMAX" cuts floor maintenance costs by saving labor—no buffing is necessary on application, and no polishing is required.

"BEAMAX" is easily applied with a cotton mop or lamb's wool applicator. It smooths itself. It dries to a hard, lustrous finish in twenty minutes or less.

"BEAMAX" is long wearing. Finish is easily maintained by buffing; each cleaning increases the lustre.

Floors can be washed with clear water without affecting the finish.

"BEAMAX" is recommended for all types of floors—this one wax takes care of linoleum, wood, tile, terrazzo, rubber, asphalt tile, mastic, etc.

"BEAMAX" will not show lap marks when used for "patching" worn spots. It has no odor.

"BEAMAX" is sold in drums, half-drums, and quarter-drums, as well as in 10-gal., 5-gal., and 1-gal. cans. It is a perfect emulsion and will not settle out.

Try "BEAMAX" for yourself. Send coupon for sample and prices.

**THE DAVIES-YOUNG SOAP
COMPANY**
Dayton, Ohio

Copyright 1933 by The Davies-Young Soap Co.

The Davies-Young Soap Co.
Dayton, Ohio.

Please send me without charge sample can of
"BEAMAX" Dries to a Lustre LIQUID WAX.

Name

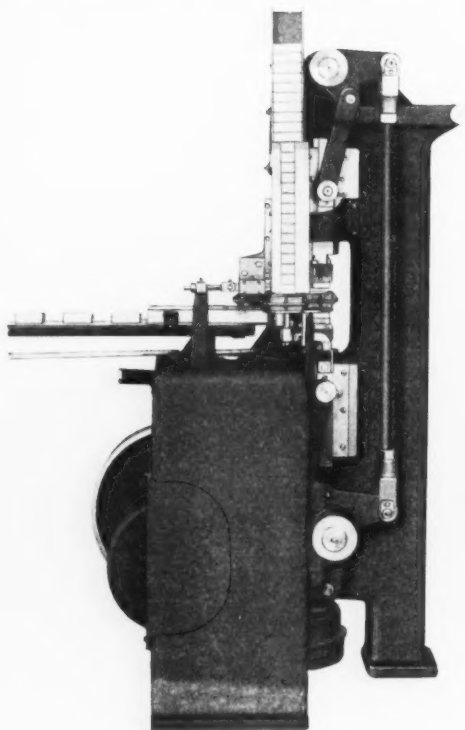
Address

City

"We spare no expense to perfect the appearance as well as the quality of our soap. Woodbury's looks so much finer as it comes from your new ET Press that we are herewith ordering two more to replace earlier models still in good condition."

An Official of

The Andrew Jergens Co.



TYPE ET

Perfect pressing is done by our new Toggle-Operated Presses. Equally important is the fact that it is done without the use of a pressing lubricant so that no discoloration of the soap takes place later.

Replace your old ones with

JONES NEW TOGGLE PRESSES

R. A. JONES & CO., INC. P. O. BOX 485 CINCINNATI, OHIO

Our laundry and toilet soap presses are used almost exclusively by manufacturers, the world over, for pressing cakes of soap of every shape, size and quality. Write for catalogue.



SOAP

Volume Nine

Number Nine

SOAP COSTS,—AND THE CODE

THE code of the soap industry, we are informed, was on the whole well received in Washington. There have been, of course, changes in the original document which was adopted in Chicago last month. A special schedule of wages for the Southern States which was included in the code at the behest of manufacturers from the South, will not be permitted by the Administration. In theory, an equal wage scale for the whole country may be ideal, but in actual practice, we fear that it will cause no end of trouble in the South. That it may react harshly against negro labor has already been pointed out by Southern manufacturers.

By operating on a forty-hour week and a forty-cent minimum wage scale, soap manufacturers are increasing their labor costs from ten per cent all the way up to thirty-five per cent, according to plant and locality. Although the soap industry is extremely fortunate in that its proportion of labor costs has been small in comparison with most industries, the increase is nevertheless going to make itself felt, especially among firms which have not been in too strong a position over the past few years. That soap price schedules should be adjusted accordingly, goes without saying.

Public hearings on the soap code will probably be held on September 28th at Washington. We sense that all groups of the soap industry are now pretty much in accord with the code, with perhaps minor exceptions, and that there will be no opposition when the

hearings are held. All in all, we believe that the code is just about as fair and concise a document of its kind as we have yet seen. Supplementary revisions, especially the addition of means for regulating trade practices in various sections of the industry, will follow as rapidly as they can be formulated, agreed upon, and accepted in Washington. In this regard we urge soapers to be patient inasmuch as hasty action at this time will be of no avail because of necessity consideration in Washington is slow.

In the meantime, we suggest a continuation of cooperation with the Association of Soap and Glycerine Producers by every soaper, no matter how small, joining the Association now so that he may be an actual member and in close touch with the activities of this organization when the code is actually accepted by the Administration. As a member, his closeness to the picture should be worth many times the nominal ten dollars per year dues.

—o—

THE rendering industry has filed its code in Washington. Two intentions of the tallow renderers are quite apparent. First, they want to sell more tallow to consumers, and second, they want to sell it at higher prices. To these ends, the code has apparently been written. We fear, however, that their code in its present form is very likely to be turned back to them for revision by the N.R.A. There is much too much in it that aims to restrict and defeat the laws of supply

and demand,—and that might tend to promote monopoly.

We can well appreciate the mental attitude of the renderers in writing their code, especially when we consider the "beating" they have taken from consumers, both large and small over the past four years. That they are bitter against the soapers is only natural. Their position has been much akin to that which forced the large packers into the soap business twenty-five or thirty years ago. However, the steps which they propose in their code do not constitute the answer. There are simply too many renderers, and not until a goodly proportion of the irresponsible ones go out of business, will there be any genuine basic improvement in the industry.

—o—

FOREIGN trade promotion is no longer a part of the work of the Department of Commerce. The job has been taken over by the Department of State. What a sad ending for the "foreign" part of the Bureau of Foreign and Domestic Commerce. Can you imagine the eager interest of the attaches of American embassies when it comes to helping somebody sell a carload or two of soap abroad?

—o—

IN one of the beauty magazines a few months ago, there appeared an article entitled "What is Good Soap?". The author is a physician, but apparently not above writing a little "fear" copy warning against all soaps for shampoo purposes except olive oil castile soaps. We take no exception to his recommendation of olive oil soaps for shampoos, because they are very fine for the purpose. However, we do raise an eyebrow or two when he condemns "cheap, inferior soaps" because they contain "lye" and then states: "Pure castile soap actually consists of nothing but olive oil and soda."

The writer then goes on to bat out a scientific home-run with the following: "Soaps are made of an alkali and a fat or oil. There are some twenty fats which may be used, selected largely for their specific gravity or weight compared with water. These fats include tallow, the various fatty acids and other fats, and olive oil, which is acknowledged the best. The heavier the molecule of oil, the better suited the oil is for use in soap."

And after that, we sadly draw the curtain!

THE dairymen through the American Association of Creamery Butter Manufacturers have opened their war against imported oils and fats apparently in earnest. They have called upon the President to cut down the importation of these materials. The National Cooperative Milk Producers' Federation is aiming its guns in the same direction. Even though the great bulk of imported fats goes into the soap kettle and for other industrial purposes, and not for food, the battle goes on. And always, it is the same group of professional representatives for the farmers, the dairymen, the cattle raisers, and the like, who set up these organized protests against imported oils and fats. There can be no doubt but that these organizers know that imported industrial fats have little or no influence on the American markets for butter, lard, cotton oil, and other edible fats. However, imported fats do make a good subject to attack,—at a nice salary for the professional organizer and leader of the attack. And if the dairymen did but know it, a real farmer with horny hands and mud on his shoes, and not too glib and smooth, could do more at any committee hearing than a dozen silver-tongued professional representatives,—that is if the bulk of the dairymen really are worried about these imported fats,—which we doubt.

—o—

FROM England groups of retail grocers have raised a loud protest against too extensive house-to-house sampling by certain soap manufacturers. The grocers claim that in some localities the retail sale of soap has been killed off for periods as long as two weeks by intensive sampling campaigns. And we thought that the only place where manufacturers were foolish enough to overdo this kind of thing was in the United States.

—o—

A QUESTIONNAIRE covering consumers' purchasing habits and preferences on rosin has been sent to the soap industry by the Industrial-Farm Products Division of the Department of Agriculture. The results of the findings from this questionnaire should be of very considerable value to every rosin consumer through their influence upon the control of quality and grading at the source. Prompt cooperation with the Department by every rosin consumer in the soap industry will aid very considerably in this work.

Soap Code Revised

Changes Made in Code After Washington Conference—Public Hearing Scheduled for Sept. 28—Code Reported Well Received by Administration—Refuse to Allow Wage Differential for South—Final Acceptance Not Expected Before Oct. 15

THE code of the soap industry, adopted at a meeting of soap manufacturers on August 15 at Chicago, and submitted to the National Recovery Administration shortly thereafter, has been amended in keeping with certain requirements of the N.R.A. and the revised code filed with the Administration. Changes in the code were made after a conference between officers of the Association of American Soap and Glycerine Producers and the N.R.A. in Washington. On the whole, the code was reported well received by the Administration. Exception to the clauses which permitted a differential in wages paid by manufacturers in the Southern States, was taken by the Administration and as a consequence, they have been eliminated. These lower wage scales, designed particularly for negro labor in the South, were introduced originally at the insistence of several manufacturers from Southern States.

The date for a public hearing has been set tentatively for Thursday, September 28, at Washington. It is expected that the code will not reach the president for his signature before October 15th or later.

The revised code, filed Sept. 9 with the Recovery Administration, follows:

Code of Fair Competition for the Soap and Glycerine Industry

(Revised draft after preliminary NRA hearing, and as re-submitted to NRA on September 9, 1933)

ARTICLE I

Purposes

To effectuate the policies of Title I of the National Industrial Recovery Act, the following provisions are submitted as a Code of Fair Competition for the Soap and Glycerine Manufacturing Industry, and upon approval by the President of the United States, shall be the standard of fair competition for this industry.

ARTICLE II

Definitions

1. The term "Soap and Glycerine Manufacturing Industry" as used herein includes the manufacturing in Continental United States of soap, soap products, and glycerine, and branches or subdivisions thereof as may from time to time, upon approval of the President of the United States or his authorized representative, be included under the provisions of this Code. This definition shall not, however, bar supplemental codes or agreements, when submitted by the Code Authority or other Agencies set up in this Code, and when approved by the President of the United States or his

authorized representative, from applying to related detergent or cleanser industries in Continental United States and/or elsewhere as may be specified.

2. The term "employee" as used herein includes any person engaged in any phase of the industry in any capacity in the nature of employee irrespective of the method of payment of his compensation. The term "employer" includes anyone by whom such an employee is so engaged.
3. The term "member of the industry" as used herein includes any employer who shall be subject to this Code. The term "member of the Code" includes any member of the industry who shall expressly signify assent to this Code.
4. The term "Association" as used herein means the Association of American Soap and Glycerine Producers, Inc., a membership corporation, not for profit, organized and existing under the laws of the State of Delaware. The term "Board of Directors" means the Board of Directors of said Association.
5. The term "southern states" as used herein includes Virginia, North Carolina, South Carolina, Tennessee, Arkansas, Georgia, Alabama, Mississippi, Louisiana, Texas and Florida.
6. The term "Act" or "Title" as used herein means Title I of the National Industrial Recovery Act. The term "President" means the President of the United States.
7. The term "effective date" as used herein means the first Monday ten days or more after this Code shall have been approved by the President. The term "six months' period" means the 26 weeks' period beginning with the effective date, and each 26 weeks' period thereafter until the expiration of this Code or of the Act.
8. Population for the purposes of this Code shall be determined by reference to the 1930 Federal Census.

ARTICLE III

Hours

- A. No employee shall work or be permitted to work in excess of an average of 40 hours per week in any six months' period, or in excess of 45 hours in any calendar week, except as follows:
 1. Technical or professional employees such as chemists, lawyers, doctors, nurses, etc., engaged in their technical or professional capacity but not including skilled operating personnel; employees in a managerial, supervisory or executive capacity who receive \$35 or more per week, and their immediate assistants; supervisors or highly skilled workers in continuous processes where restriction of hours would unavoidably reduce production; employees on emergency maintenance and repair work; watchmen; and outside salesmen.
 2. Accounting, clerical, office, store, shipping, service or inside sales employees, who shall not work or be permitted to work in excess of an average of 40 hours per week in any six months' period or in excess of 48 hours in any calendar week.
 3. Employees on automotive or horse-drawn passenger, express, delivery, or freight service, who shall not work or be permitted to work in excess of an average of 44 hours per week in any six months' period or in excess of 48 hours in any calendar week.
 4. Engineers, firemen, water-tenders, and oilers, who shall not work or be permitted to work in excess of 48 hours a week.
- B. If any employee on an hourly rate of pay works in excess of 8 hours in any 24-hour period, the wage paid

for each excess hour shall not be less than one and one-third the regular hourly rate.

- C. No employee shall evade this Code by working for more than one employer for a total number of hours in excess of the number of hours herein prescribed. If any employee works for more than one employer, he shall report to each employer the total hours he is working, and such employers shall not permit any employee to work for a total number of hours in excess of the number of hours prescribed.

ARTICLE IV

Wages

- A. No employee shall be paid less than 40 cents an hour, or in southern states less than 35 cents an hour, except as follows:
1. Learners or apprentices during the first 60-day period of apprenticeship in the industry and not exceeding in any establishment 5 per cent of the total number of employees; employees engaged in light labor such as wrapping, packaging, and filling; and messengers, junior clerks, or others doing a junior grade of office or clerical work who are over 16 but less than 19 years of age, and not exceeding in any establishment the number so employed on June 15, 1933, may be paid not less than 30 cents an hour, or in southern states not less than 27½ cents an hour.
 2. Employees of the classes mentioned in sub-sections 2 and 3 of paragraph A of Article III, may be paid not less than \$15 per week in any city of over 500,000 population, or in the immediate trade area of such city; \$14 per week in any city or town over 10,000 and less than 500,000 population, or in the immediate trade area of such city or town; \$13 per week in any other part of the United States.
- B. Each employee on piece work shall be paid at a rate which will guarantee not less per hour than the hourly rate to which he is entitled under this Article.
- C. Based upon changes in minimum pay necessitated by the foregoing paragraphs of this Article, each employer shall in each establishment make fair and equitable readjustment of all pay schedules.
- D. There shall be no evasion of this Code by any member of the industry by reclassification of general types of occupations existing on June 15, 1933.

ARTICLE V

Child Labor

No person under 16 years of age shall be employed in this industry.

ARTICLE VI

Administration

- A. To further effectuate the policies of the Act, the Board of Directors of the Association is set up to cooperate with the President or his authorized representative as a Code Authority for the Soap and Glycerine Manufacturing Industry in the administration of this Code. The President or his authorized representative may designate not to exceed three additional members, without vote, on such Code Authority.
- B. Any member of the industry is eligible for membership in the Code and in the Association, and there shall be no inequitable restrictions on such membership. Members of the Code shall be entitled to share the benefits of the activities of the Code Authority and shall bear their proportionate shares of the expenses of maintenance of the Code Authority and its activities.
- C. Product divisions and/or geographical sections of the Association or the industry may, when approved by the President or his designated representative, establish their own Planning and Fair Practice Agencies which

shall each be self-governing in respect to conditions and problems relating exclusively to said divisions or section, provided that no action of any such Agency shall be inconsistent with the purposes, policies, and activities of the Code Authority of the industry, or with the Act or this Code, and provided further that no supplemental agreements, recommendations, or provisions shall be submitted to the President by the Code Authority of any Planning and Fair Practice Agency without first having been approved by duly recorded vote of the division or section concerned. Application for the establishment of any Planning and Fair Practice Agency, and any recommendations by such Agency when established, shall be transmitted to the President or his authorized representative through the Code Authority.

- D. The Code Authority shall have the following duties and powers to the extent permitted by the Act and subject to review by the President or his authorized representative:

1. The Code Authority shall administer the Code and shall maintain all activities pertinent thereto, such as obtaining from employers reports requested by the President or his authorized representative in respect to wages, hours of labor, conditions of employment, and number of employees.
2. Subject to the provisions of paragraph C of this Article, the Code Authority may from time to time make recommendations to the President or his authorized representative for additions or modifications to this Code, which upon his approval, after such hearing as he may prescribe, shall become a part of the Code and have full force and effect as provisions hereof. The Code Authority shall study trade practices with a view to making such recommendations to the President as it may deem desirable.
3. Under direction of the Code Authority or of any Planning and Fair Practice Agency set up in accordance with paragraph C of this article, studies shall be made in an effort to determine fair and uniform cost-finding procedures for members of the industry and its divisions. If and when such cost-finding systems are recommended by the Code Authority or by the Planning and Fair Practice Agency concerned, and are approved by the President or his authorized representative, then sales below cost as determined by such approved systems shall be an unfair method of competition.

ARTICLE VII

Collective Bargaining

Employers shall comply with the following requirements of section 7 (a) of the Act:

"Employees shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection; (2) no employee and no one seeking employment shall be required as a condition of employment to join any company union or to refrain from joining, organizing or assisting a labor organization of his own choosing, and (3) employers shall comply with the maximum hours of labor, minimum rates of pay and other conditions of employment approved or prescribed by the President."

Without in any way attempting to qualify or modify, by interpretation, the foregoing requirements of the Act, employers in this industry may exercise their right to select, retain or advance employees on the basis of individual merit, without regard to their membership or non-membership in any organization.

ARTICLE VIII

General

1. In accordance with section 10 (b) of the Act, this Code and all the provisions thereof are expressly made subject to the right of the President from time to time to cancel or modify any order, approval, license, rule or regulation issued under Title I of said Act and specifically, but without limitation, to the right of the President to cancel or modify his approval of this Code or any conditions imposed by him upon his approval thereof.
2. Within each state, members of the industry shall comply with any laws of such state imposing more stringent requirements, regulating the age of employees, wages, hours of work or health, fire or general working conditions, than under this Code.
3. If any employer in the soap and glycerine manufacturing industry is also an employer in any other industry, the provisions of this Code shall apply to and affect only that portion of his business which is included in this industry.
4. This Code shall cease to be effective upon the expiration of the Act, or, upon decision of the President prior to such expiration to cancel his approval of this Code.

On Sept. 2, an announcement covering the blue eagle and certain sections of the code, was sent to all soap makers by Roscoe C. Edlund, general manager of the Association of American Soap and Glycerine Producers. This announcement stated:

1. Last night General Johnson, National Recovery Administrator, granted our petition on behalf of manufacturers of soap, soap products, and glycerine for substitution, where desired by the individual manufacturer, of the enclosed paragraphs for the corresponding paragraphs of the President's Blanket Re-employment Agreement.

2. In this connection I quote the following from official NRA regulations:

"HOW TO GET THE BLUE EAGLE"

- "1. Sign the President's Re-employment Agreement.
- "2. Mail the Signed Agreement to your District Office of the Department of Commerce.
- "3. Put the Agreement into Effect.
- "4. Sign a Certificate of Compliance. (This is a slip distributed with the Agreement).
- "5. Deliver the Certificate of Compliance to your Post Office. (The Postmaster will give you your Blue Eagle)."

Quoting further, now that our industry provisions have been accepted as substitutions, you "may put the substituted provisions into effect in place of the indicated paragraphs of the President's Re-employment Agreement. In this case you should add to your Certificate of Compliance the following clause: 'To the extent of NRA consent as announced, we have complied with the President's Agreement by complying with the substituted provisions of the Code submitted by the Soap and Glycerine Industry.'

"If you have already put the President's Re-employment Agreement into full effect, and have already gotten

your Blue Eagle, you may still put the substituted provisions into effect without signing another Certificate of Compliance."

3. You should understand that the President's Re-employment Agreement runs only to December 31, 1933, or until the permanent Code of Fair Competition for our Industry is approved, which may be in a month or so from now. The substitutions, if you elect to use them, also cover only the same period.

4. You should also understand that you are *not* compelled to substitute the attached for the President's Re-employment Agreement. You have the *privilege* of doing so if you so desire.

5. Yesterday our Board also held an all-day hearing with the NRA on our permanent Code. We believe the impression made was a good one. We will, however, have to rewrite much of our Code, clarifying and restating, and making some alterations. It seems clear that for the South we shall *not* be able to make reductions below the North in the amounts stated in the draft of the Code as submitted August 24, of which copy was sent you.

6. Re-writing the Code will take time, and it must then be discussed again with the NRA officials. When in shape it will be published by the NRA, and date for public hearing announced. (Incidentally, should you see in the newspapers the Code as submitted by us August 24, disregard it, for as indicated above it will have to be much changed.)

7. To soap manufacturing companies who have not yet joined the Association, I again suggest that step. Apply on your company letterhead, indicating the kinds of soap you make, and attaching check for \$10.00 payable to J. S. Goldbaum, Treasurer. This Association is doing thousands of dollars of work on *your* behalf, and it would seem that every soap manufacturer in America would want to pay his \$10.00 annual dues. While many have done so, the number who should do likewise and have not, is still large.

APPROVED SOAP AND GLYCERINE SUBSTITUTIONS FOR PRESIDENT'S BLANKET RE-EMPLOYMENT AGREEMENT

Substitutions. For paragraph 2 of President's Agreement:

Employees (other than factory or mechanical workers or artisans, watchmen and outside salesmen) shall not be employed more than a 40-hour week averaged over a four weeks' period; provided, however, that such employees may be employed for not more than 48 hours in any week.

For paragraph 3 of President's Agreement:

No factory or mechanical worker or artisan (except engineers and firemen) shall be employed for more than a 40-hour week averaged over a four weeks' period; provided, however, that such employee may be employed for not more than 48 hours in any week. In the case of engineers and firemen there shall be allowed a

(Turn to Page 45)

1/3 OF YOUR MARKET



More labor saving cleansers—more fine toilet soaps—more “store-bought” laundry soaps—these are the trends you will note in the rural third of your market.

The farm woman buys the soap for forty million pairs of hands—for ten million homes.

She has more money to spend than in several years.

She represents a third of your market.

One magazine, and one magazine only, is published exclusively for her.

THE
FARMER'S WIFE
Webb Publishing Company
NEW YORK SAINT PAUL CHICAGO



The makers of these products are cultivating this great market through The Farmer's Wife: OLD DUTCH CLEANSER
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SOAP PLANT COSTS



A Study of Some Cost Factors and Present Methods in Use by a Few Manufacturers

COSTS in the soap industry are no different from those in any other industry. They vary from plant to plant, but, it has been pointed out, not to the wide extent generally believed. Where they are accurately determined, they represent actually the cost of materials plus the expense of manufacture, selling, and *all other* expenses. It is in the cost of manufacture, sales, and "other" things where many manufacturers have always been prone to fool themselves, although this point is questioned by the head of one of the most progressive and widely-known smaller soap companies. He maintains that practically every soap manufacturer except the very smallest perhaps, knows his true costs with a fair degree of accuracy. Where a soaper sells below these costs, he holds that this is done deliberately for some particular reason and not because of ignorance. He states that ignorance of costs is more often a preferred excuse for price cutting rather than the true reason.

Under the provisions of the National Recovery Act, accurate cost finding takes on greater importance and may eventually become imperative in certain industries. That uniform cost determination may ever become mandatory under the law throughout the soap industry, appears extremely remote. With several thousand brands, innumerable qualities and types of soap,—even though there is quite a list of so-called standard items,—the complications in the enforcement of uniformity in cost finding would be very numerous.

If there were not so many types of soap, used for as many different purposes, manufactured by firms with millions invested in plants all the way down to the individual who makes hand paste in his cellar by night and peddles it by day—then, the problem of uniformity of cost determination in soap manufacture might be easy

of solution. As it is, there are probably no two units of the soap industry in the country today, no matter how large or how small, whose set-up is exactly alike.

One of the hopes in some quarters is that the N.R.A. will put a stop to unbridled competition. By the enforcement of a not-below-cost selling price, it is pointed out that every reasonably efficient manufacturer can make a fair profit, and that the small, irresponsible manufacturer might be controlled. The age-old case of the manufacturer who deliberately lowers his price below cost to entice away customers or to put a competitor out of business, is indicated as an abuse to be checked. Whether through a system of costs in industry codes, the N.R.A. can in instances such as these effectively control competition, remains to be seen.

At the present time, there are almost as many cost systems as plants in the soap industry. Some of these systems are unusually complicated and adapted to special conditions existing in the establishments in which they are used. Others are so inaccurate that they are mere estimations of the most empirical character imaginable, based solely on factors determined from the results of past experience and usually so rigid in construction that they do not admit of proper adjustment to meet varying conditions. For example, it was found that there was little attempt made during the 1930-32 period to adjust the cost factors to decreasing prices of raw materials, and in many cases, they were blindly applied, usually with disastrous results. When and if a uniform cost system ever were adopted by the soap or any other industry, it would have to be simple and accurate, simple enough to avoid too much labor and undue expense, and accurate enough to give a true cost picture. It would have to be acceptable to the majority of manufacturers, both large and small, and it would have to be flexible

enough to be applicable to the various grades and types of products made by an industry. Where an industry, like the soap industry, is composed of distinct groups, whose manufacturing methods, while alike in basic principles, vary considerably in details, it would, of course, be necessary to formulate a cost system for each group. Above all, the cost system would have to be practical, probably in a great many cases more refined than the system heretofore used, but not so entangled with refinements that it would become more of a nuisance than a help.

It is understandable that any uniform cost systems would be patterned in certain details after the methods of cost accounting now in use. They would probably represent a composite picture of present cost practice, embodying the good points thereof with whatever changes and additions are required to produce an accurate system. The purpose of this article, however, is not to present any plan for or brief against a uniform cost system for the soap industry. It is concerned mostly with certain cost accounting methods actually in use in the industry today.

THE first essential in any cost system is accurate and simple methods for measuring or calculating the various raw materials used in making the product as well as the finished product itself. The accuracy of these methods will naturally control the accuracy of the cost figures. Various solid and liquid raw materials are used in making soaps and these are received in the soap works in various conditions, packed in barrels, drums, bags, flasks and even shipped in tank cars or loose in box cars, or carted to the plant in trucks, or at times they arrive in tank steamers at the plant's own dock. However they arrive, their weight must be determined by some suitable method. Shipping weights are generally accepted, either the plant or the railroad weighing the cars before and after unloading, the difference naturally being the weight recorded. The shipping weight is checked against the invoice and the necessary adjustment is made. This time-honored method applies to all materials coming into every plant. It is the initial step in all cost determinations.

Some soap plants take inventory of raw material supplies at the end of each month and some every three or six months, or even at the end of the year. The best check on efficiency in soap making is obtained when the inventory is taken or checked against a "perpetual" system at the end of each month. The common inventory set-up is made for each commodity, as follows:

On hand beginning of the month.....	pounds or gallons
Received during the month.....	pounds or gallons
<hr/>	
Total stock during month.....	pounds or gallons
On hand end of the month.....	pounds or gallons
Consumption (by difference).....	pounds or gallons

The inventory sheet usually carries space for recording the separate shipments received, car numbers and

other pertinent information. Partly processed soap is measured and calculated back in terms of raw material.

To take inventory each month is considered better practice than every quarter, while a six months' or yearly inventory is altogether too infrequent. The monthly inventory will give more accurate costs, will enable a better check to be made on the efficiency of the kettles and will avoid large discrepancies in consumption figures due to inventory losses extending over a long period of operation. In measuring the liquid contents of a tank, there is always the question of deposit. The deposit is naturally carried on the books as available material, until it becomes so large and troublesome that the tank must be cleaned out. Then it looms up as a serious inventory loss. It is fortunately true that most oils, caustic soda solution and other liquids used in soap works do not settle out any great amount of deposit even after long periods. It is estimated that the loss due to deposit in the case of vegetable oils is no more than a half to one per cent, at the most over a year's period.

These losses, nevertheless, must be taken into consideration in calculating costs. A common method, which does not interfere with determinations of efficiency of operation, is to increase the price of the raw material used per unit weight of soap, leaving the consumption figures unchanged. Thus, if 100,000 pounds of oil had been used according to unchecked figures at 4 cents per pound, making a total of \$4,000 for the oil, and it was found that the consumption figure was short by 1,000 pounds due to deposit in the tank, the cost is corrected by charging 4.04 cents per pound for the oil in the place of 4 cents. Then the cost of the oil will be \$4,040 instead of \$4,000 and the consumption figure remains 100,000 pounds. If the 1,000 pound error were included in the month's figures as consumption, the efficiency calculation of the kettles would be greatly lowered and the measurement of soap produced, based on the oil used, would be completely unbalanced. It is of course also possible to distribute the poundage loss over several months.

In the case of liquids which are measured by first determining volumetrically the contents of the tanks and then reading the equivalent weights from a table, it is understandable that variations in temperature will increase or decrease the volume. Some plants determine the temperature of the oil in making volumetric readings and correct to a standard temperature. This is a refinement naturally gives greater accuracy in comparative inventories.

WIDELY varying methods of determining actual soap costs, depending upon the unit and place of measurement, are in use today. These do not include the percentage cost system which will be discussed in more detail later and really has no place at all in cost accounting. The most accurate system is held to be the figuring of costs per pound of soap made, this being usually changed to cost per gross of standard-weight

cakes or per case of 100 cakes, etc., at a certain point in the manufacturing process. There are, however, different methods used for determining the weight of soap produced. Thus in one soap works, the frame of soap is used as a unit.* From the results of many years' operation, it is known in this plant that an average of 109 frames of soap can be produced from 50,000 pounds of mixed oils accurately weighed into the kettle and saponified. All the costs are then figured on the frame of soap. For example, if 50,000 pounds of oil are used in all, the charge of oil against a frame of soap is 50,000 divided by 109 or approximately 460 pounds. If the cost of the mixed oils is 3.10c a pound, then the cost of oils in making a frame of soap is \$14.26.

The rest of the costs are determined in similar manner. The quantity of caustic soda required for saponification is calculated by the chemist, this being the theoretical consumption, while the excess caustic soda used by the soap boiler is determined by an analysis of the waste lyes. The quantity actually used is thus determined and this is checked by a caustic soda balance of the plant made every three months. Thus an average figure of 110 pounds of caustic soda is set up for making one frame of the soap. It must be remembered that this refers to one particular grade of soap, determined by the composition of the raw materials, and that the consumption of caustic soda or other alkali will vary correspondingly. In some plants it is possible to keep all the raw material costs strictly separate due to the fact that large quantities of only a few grades of soap are made. In those plants where this is not possible, some equitable plan must be adopted for allocating the correct consumption of raw materials to different grades and brands of soap, this being generally done on the proportion basis depending on the total quantity of soap made and the quantity of each brand made.

Continuing this system, we find that 110 pounds of caustic soda are used in making a frame of soap and the cost at \$2.75 per hundredweight is accordingly \$3.03 per frame. The next charge is for salt used in making the various changes in the soap. The quantity of salt used is weighed out and an average of 160 pounds of salt is consumed in making a frame of soap. The cost is 160 pounds at 35 cents per hundredweight or 56 cents per frame. In making this particular brand of soap, both sal soda and sodium silicate are used. Here again the quantities are weighed out to be later checked against inventory. In the case of sal soda, 50 pounds are required per frame of soap at a cost of 50 cents per hundredweight or 25 cents per frame. There are also used 320 pounds of silicate of soda solution, costing 75 cents per hundredweight, or \$2.40 per frame of soap. This soap is perfumed at a rate of one pound per frame at a cost of 36c per pound.

In order to determine the weight of soap per frame, every tenth frame in this soap plant is weighed before and after filling. The average weight of soap per frame

is thus determined and reported and used as a check in determining the accuracy of the average weight of soap used in figuring the costs. Each frame of soap is also credited with the glycerin recovered. An average figure is used, based on previous quarterly figures as determined by inventory. For this particular brand of soap, this figure is 8.7 pounds of 88 per cent crude glycerin per 100 lbs. of oil, valued at 3.75 cents per pound. Inasmuch as each frame of soap corresponds to 460 pounds of oil, the glycerin credit is 4.6×8.7 or 40 pounds at 3.75 cents per pound or a total of \$1.50. The net cost of raw materials in making this grade of soap will then be the sum of the above costs for oil, caustic soda, salt, sal soda, sodium silicate and perfume, or \$20.86, less \$1.50 for glycerin credit, or \$19.36. The average weight of soap obtained per frame is 1,045 pounds, which gives a net cost per hundred pounds of soap for raw materials, \$1.85.

It may be mentioned that in this plant it is customary to charge the entire manufacturing cost to the soap on the same unit basis, that is one frame of soap. The method of figuring this expense is quite interesting and simple, although there will probably be many who will disagree as to its accuracy. In the first place the manufacturing expense is divided up in the following manner:

- 44 per cent factory wages
- 12 per cent factory salaries, foremen and superintendent
- 12 per cent depreciation (10% equipment and 2 to 5 per cent buildings, according to Government regulations).
- 8 per cent administration charges, including purchasing agent, timekeeper, auditing department
- 5 per cent plant repairs and renewals
- 5 per cent taxes
- 4 per cent fuel
- 2 per cent insurance (fire, appraisal up to date, group life and compensation).
- 8 per cent miscellaneous

No attempt is made to determine the actual costs per pound, per gross or per case of finished soap. Evidently, as far as could be told there is no record kept of labor charges for the different brands of soap made. The labor costs are figured together with the overhead costs and make up a composite item, known as manufacturing expense.

IN order to obtain some basis for prorating the manufacturing expense, a study was made of two important soaps made by this plant, one with an oil content of 45 per cent, and the other with an oil content of 90 per cent. It was found that the ratio of fat or oil content in the soap, that is the ratio of fat or oil by weight as percentages of the total weight of raw materials used in making the soaps, represented accurately the ratio of manufacturing expense that could be properly charged to the soaps. An average cost per hundred pounds of oil, *not of soap*, is arrived at based on previous experience and is checked every three months. This figure is claimed to vary only very slightly from year to year

(From Page 65)

* This is the cost system used by the Los Angeles Soap Co., as reported in the *N.A.C.A. Bulletin*, Volume xiv, no. 22.

A INDUSOIL

A

NEW FATTY ACID

A low-priced substitute for Commercial Red Oil. Never before manufactured in the United States.

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Oil Groups Adopt Codes

Cotton Oil and Coconut Oil Refiners, and Corn Oil Producers File Separately —Open Prices, Ban on Rancid Stocks, Rebates, Consignments Called for— Labor Provisions Similar

CODES have been drawn up by refiners of cottonseed oil, known as the code for the shortening, cooking oil and salad oil industry, and also by the refiners of coconut oil, and the producers of corn oil. The cottonseed oil refiners' code was filed with the Agricultural Adjustment Administration early this month. The code calls for hours of labor not to average more than 40 per week over a period of any month for white collar employees. For factory employees the maximum work week is 40 hours with the right to work a maximum week of 48 hours for not to exceed 10 weeks, no worker to be employed in excess of 10 hours in any one day. Chauffeurs, watchmen, engineers, firemen not to be employed more than 44 hours in any one week.

Minimum wages range from \$15 to \$12 for white collar workers. Wages for factory employees range from 30c per hour in the south and southwest to 35c, 40c and 42½c per hour in other zones, the zoning being on the basis of state boundaries and groups of states. Employees engaged in light work may be paid not to exceed 5c less per hour than the above, but at no time is the number of employees at such lower rates to exceed by 20 per cent the total number of workers employed.

The code is to be administered by a Control Committee of the industry. The Secretary of Agriculture is to have the right to name a member to represent him on the Committee. The Control Committee may set up regional committees. It is provided that a record be made of the actions and interpretations of the Control Committee and such actions and interpretations shall be forwarded to the Secretary for his consideration and review. Under General Agreements a uniform accounting system is provided. It further includes the following:

"(b) Each member of the industry shall sell only on the basis of open prices and terms which are to be reported immediately to the Administrative Officer of the Control Committee and which shall be uniform from him to all trade buyers of the same quantity, under the same condition, located in the same competitive area and which shall be strictly adhered to until changed.

"(c) When a member changes his prices and/or terms he shall immediately furnish a report of such change to the Administrative Officer of the Control Committee who shall publish them to interested members and to others who are interested throughout the trade, and to trade journals that are interested.

"(d) All sales shall be for a specified quantity, of a specified brand or grade, at a specified price, for a specified time of shipment and with specified terms.

"(e) Members of the industry shall not sell to distributors who resell their goods as loss leaders if the practice commonly known in the trade as selling loss leaders is directly or indirectly condemned or declared unfair in the Code of Fair Competition of such distributors.

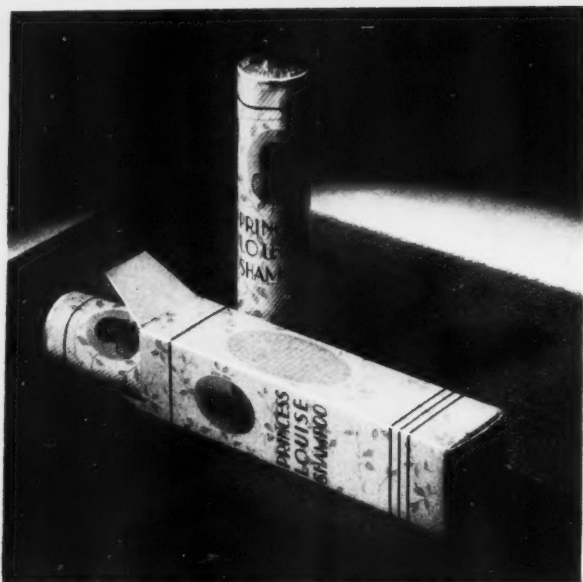
"(f) In the interest of public health, members of the industry shall not sell or offer to sell for food purposes any product of the industry that has deteriorated in quality or become rancid, or that is below standard quality.

"(g) The Control Committee may buy and dispose of distress stocks or stocks which have deteriorated or become rancid or are below standard."

Unfair trade practices are covered. They ban as unfair secret payments, or allowances or rebates, refunds, commissions or unearned discounts, allowances for transportation, the making of consignment sales, etc. Article VII deals with statistics and provides that the Administrative Officer of the Control Committee may collect and disseminate statistics and other information and specifies that each member shall furnish such information as may be requested, the information to be confidential except when required for Congressional Committees, etc. No date has been set for a hearing on the cotton oil refiners code, but a hearing on a code for the cottonseed crushing industry was held in Memphis on September 12.

The code of the coconut oil refiners provides for a 40-hour week averaged over four weeks with not more than 48 hours in one week, for both factory and white collar workers. Employees engaged in refining and deodorizing operations are not included in the maximum limitation, this class not to exceed 5 per cent of the total. There is a tolerance of 10 per cent for those not engaged in continuous chemical processes and a 10 per cent tolerance for engineers and firemen. Wages are the same as in the President's Re-employment Agreement.

The corn oil producers have filed a code and their labor provisions have been approved as substitutes for those of the President's Re-employment Agreement. Factory workers are to have a 40-hour week averaged over an 8-week period, no employee to be employed more than 48 hours in one week or more than 8 hours in one day. Wages to be 40c per hour for male employees and not less than 30c per hour for female employees. Other labor provisions are as in the P.R.A. The substitutes for the labor provisions of P.R.A. were approved on September 5.



Princess Louise Shampoo of Pharma-Craft Corp. of Louisville in a carton and tube of light blue and black makes an attractive package. Tube by Wirz.



Another hypochlorite product goes over to a metal cap. Sunrae liquid bleach adopts an Amerseal Cap on its new package.

New Products



A line of shoe cleaners and dyes by Frank Jackson Co. of Chicago. With uniform bottle and closure, unique effect secured by label variation. Bottles by Fairmount Glass. Caps by Phoenix. Labels by Consolidated Printing. Cartons by Wolverine Carton.

and Packages



Shaving cream containers of Bakelite recently introduced by Frederick B. Stearns & Co. of Detroit. Moulded by Reynolds Spring Co., Jackson, Mich.



Photo by Heetfield-Tillon

New Energine Shoe White Packages of Cummer Products Co. of Bedford, Ohio. Courtesy Phoenix Metal Cap.



The Williams brushless companion to the well-known line of shaving cream and soaps is reported meeting with unusual success.

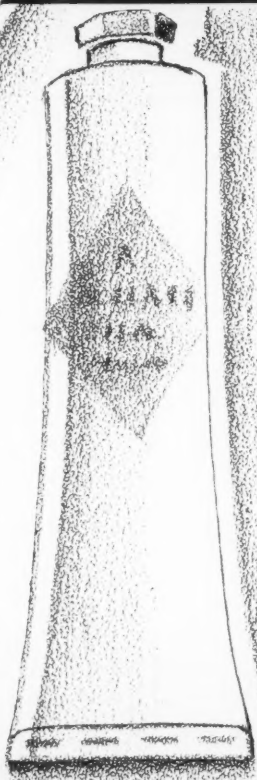


Expello of Dover, N. H., introduces Elf, a new product for cleaning windows, enamel, porcelain, glass, etc., a handy block of sponge rubber. When wet, a cleansing powder inside works through and does the work. Retail for 10 cents.

PERFUMES



SELECTION of perfumes for your shaving cream may mean the difference between success and popular indifference. The 60 years experience of Fritzsche Brothers is ready to help you make your cream outstandingly attractive from a scientific perfume standpoint.



Ordinary soap perfumes are entirely ineffective for use in shaving creams, which require special selection in basic raw materials. Not only is such selection of primary importance, but proper skillful blending also pays an important role.

Soap shaving creams and soapless shaving creams present two individual problems, for they differ radically in their perfume requirements. Exhaustive study and experiments by our laboratories have created outstanding odors for both. The most popular perfumes are available for your selection, ranging from the customary floral odors such as Lilac and Rose to the more modern blends now in vogue, such as Lavender—French and English types—including Fougere and Cologne perfumes.

Fritzsche Brothers Inc.

Proprietors of
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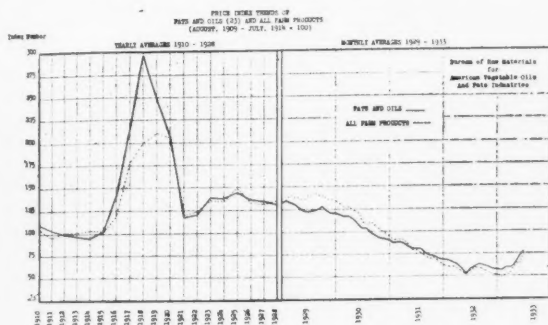
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NEW YORK 77-79 Jarvis St., Toronto

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SCHIMMEL & COMPANY
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Oil and Fat Price Trend

The United States Department of Agriculture in arriving at the index numbers of farm prices uses as the base period the five-year period between August, 1909, and July, 1914. The Agricultural Adjustment Act utilizes the same base period in the case of all agricultural commodities covered by the Act, except tobacco, in establishing the prices at which farmers must sell in order to give agricultural commodities at the present time a purchasing power with respect to articles that farmers



buy equivalent to the purchasing power of agricultural commodities for the base period August, 1909, to July, 1914. Based on the August, 1909-July, 1914, period the index number of all farm products at the end of July, 1933, stood at 76.

The Bureau of Raw Materials for American Vegetable Oils and Fats Industries has prepared an index number on 23 oils and fats, using the identical base period as that employed by the United States Department of Agriculture in arriving at the index number of farm products. As compared to this base period the index number of the 23 oils and fats for the month of July, 1933, stood at 73.4. The index numbers of some of the principal oils and fats making up the composite index number are as follows:

Cottonseed oil, crude, southeast.....	89.8
Corn oil, crude.....	116.7
Soya Bean oil, crude.....	126.3
Lard	65.0
Oleo oil	63.9
Coconut oil	48.2
Linseed oil	119.8
Peanut oil, crude.....	75.7
Tallow	54.5
Sulfur olive oil.....	84.6
Palm oil	62.2

The index numbers of the principal oils and fats show that at the end of July the prices of the oils and fats of strictly domestic origin, as contrasted with normal, compared about as favorably with normal prices as did the prices of all farm products or else approached considerably closer to normal than did farm product prices. The accompanying chart shows the price trend of oils and fats as compared with the price trend of all farm products from the period beginning with 1910 extending to the end of July, 1933. Comparison of the price index trend of oils and fats with that of farm products shows that the two follow each other with a marked de-

gree of uniformity over a long period of years, except during the World War period when there was a marked divergence, due to the tremendous prices paid for oils and fats. Since the early part of 1931 the index number of oils and fats has been above the index number of all farm products as compiled by the Department of Agriculture.

While statistics on oils and fats are under discussion, it might be remarked that the quarterly report of the Bureau of the Census just issued shows that the consumption of oils and fats of soap making character was larger in the second quarter of 1933 than in any quarter since the last quarter of 1930. Consumption of oils and fats in the paint and varnish industry was larger in the second quarter of 1933 than in any quarter since the second quarter of 1931.

Send Out Rosin Questionnaire

A questionnaire covering consumers' habits in the purchase and use of rosins, has been sent to a large number of soap manufacturers by the Bureau of Chemistry and Soils, Department of Agriculture, Washington. The questions as asked are outlined below. H. P. Holman, acting head of the Industrial-Farm Products Division of the Bureau is particularly anxious to receive back questionnaires from as many consumers as possible to aid in the investigational work of his division. Any soap or disinfectant manufacturer who has not received a questionnaire and who uses rosin can secure one by writing to Mr. Holman, and thus aid in this work.

1. What grade or grades of gum rosin do you generally use?
2. What grade or grades of wood rosin do you use?
3. Is the price or the color the governing factor in determining what grade or grades of rosin you buy?
4. Are you able to substitute one grade for another, and if so, how and to what extent?
5. Do you regularly check the grade of each lot of rosin as received to see that it is properly graded?
6. What kind of standards or types are used and when were they last renewed?
7. Other things being equal, would the substitution of a lighter or darker rosin, but not more than one full grade above or below the grade specified, harmfully affect your finished product?
8. What particular physical or chemical properties in rosin do you consider essential for your purpose?
9. Do you frequently find rosins which are unsuitable through failure to have these properties?
10. What change in any existing physical and/or chemical properties of rosin would make it more suitable for your purpose?
11. Do you buy rosin on any definite specifications other than by grade?
12. What tests, physical or chemical, do you make on deliveries of rosin to determine fitness for your purpose?
13. What if any trouble have you had in the use of rosin containing small quantities of iron, aluminum, copper or zinc?
14. Have you ever had any evidence of or tested for oxalic acid or metallic oxalates in rosin?
15. Have you ever had any evidence of the presence of sulphur or sulphur compounds in rosin, and what was its effect?
16. Gum rosin usually contains a small quantity of finely divided dirt. How much dirt (extraneous foreign matter, specks) in rosin would make it unsuitable for your purpose?
17. How much finely broken, whitish rosin conglomerate may be in the top of a barrel of rosin without making it unsuitable or objectionable for your use? Why is it objectionable?

Baker's

P-6

[BUTYL ACETYL RICINOLEATE]

... a new castor oil

derivative with great possibilities

▲ Three years of successful use in the industrial field have made it advisable to offer our Baker "P" line of castor oil derivatives to the trade.

Listed here are 17 of these new Baker alkyl ricinoleates which have a wide range of commercial applications. In addition to their well-known ability to impart flexibility and stretch to pyroxylin compositions, these modern castor oil derivatives have many other uses. They may be used as extremely high boiling and low freezing solvents, general plasticizers, dispersing and grinding media, etc.

Other suggested applications include their use as emulsifiers, detergents and "wetting out" agents. As top-cylinder lubricants and agents for lowering the co-efficient of friction of mineral oils, these materials should be of great interest to the lubricating

field. However, since each derivative possesses distinctive properties, the particular problem will determine the proper choice.

Our research department will be glad to cooperate with you in recommending suitable applications. Just write or phone us at the address below.



BAKER'S "P" LINE of Alkyl Ricinoleates

P-6-BUTYL ACETYL RICINOLEATE

P-1-Methyl Ricinoleate
P-2-Ethyl Ricinoleate
P-3-Butyl Ricinoleate
P-4-Methyl Acetyl Ricinoleate
P-5-Ethyl Acetyl Ricinoleate
P-8-Acetylated Castor Oil

P-10-Ricinoleic Acid
P-20-Ricinoleic Acid

P- 7-methyl undecylneate
P- 9-acetylated polymerized castor oil
P-11-methyl ester of polymerized ricinoleic acids
P-12-ethyl ester of polymerized ricinoleic acids
P-13-butyl ester of polymerized ricinoleic acids
P-14-methyl ester of acetylated polymerized ricinoleic acids
P-15-ethyl ester of acetylated polymerized ricinoleic acids
P-16-butyl ester of acetylated polymerized ricinoleic acids

THE BAKER CASTOR OIL COMPANY

120 BROADWAY, NEW YORK, N. Y.

Plants Jersey City and Bayonne, N. J.

Research Laboratories Jersey City, N. J.

British Grocers Face Soap Problems

Soap has been an important subject of discussion at the meetings of various British grocers' associations recently, a London report states. Strong protests have been made against the prevalence of free soap schemes, complaints being made that in certain instances sufficient soap was given away in certain areas to render purchase by housewives unnecessary for several weeks. As a result, officials of the Northern Council of Grocers' Associations will meet the representatives of the wholesalers to go thoroughly into the whole question. At another grocery conference strong objection was taken to the action of certain manufacturers selling products from door to door. One speaker declared that unless soap manufacturers put a stop to this, it would be necessary for grocers' associations to adopt a soap of their own and boost it in opposition.

Stocks of refined cottonseed oil on hand in United States as of July 31, 1933, totaled 676,163,044 lbs., as compared with 628,420,148 lbs. on the same date in 1932. Stocks of crude oil were 52,444,039 lbs. on July 31, 1933, as compared with 29,523,581 lbs. July 31, 1932.

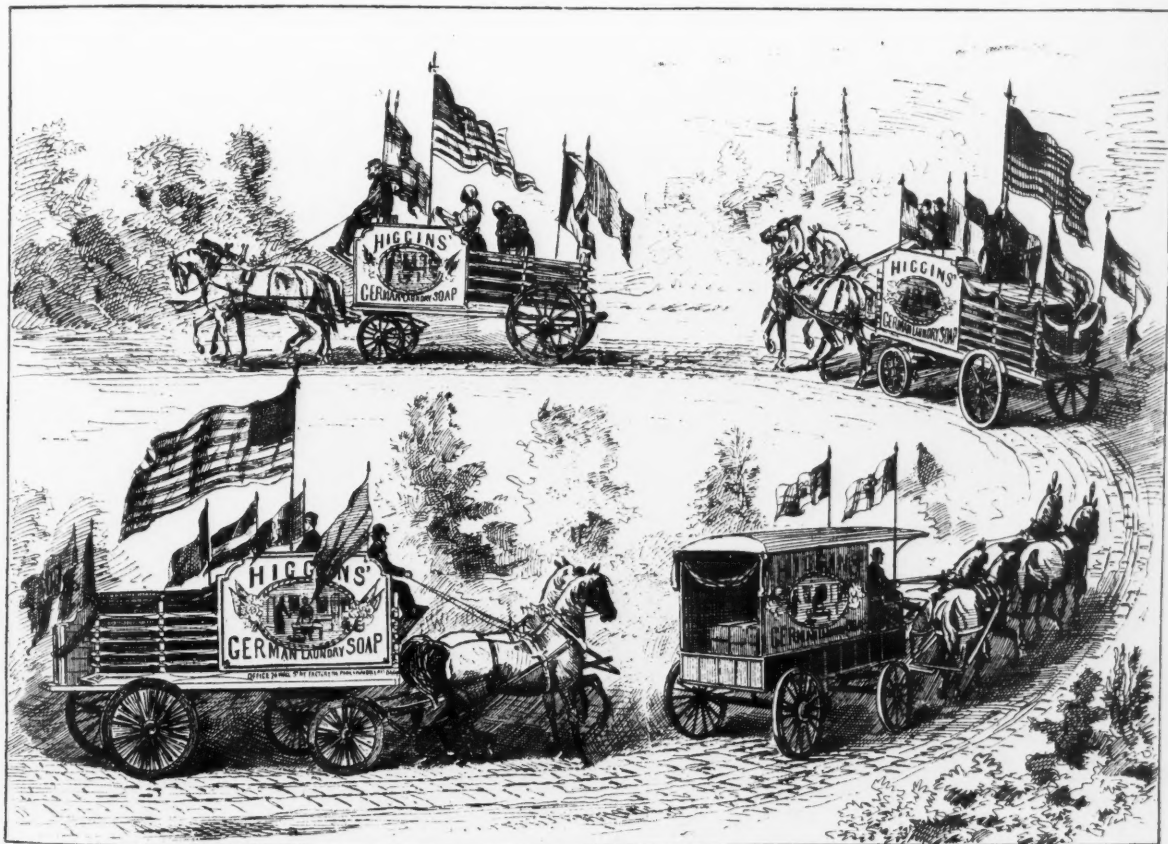
P & G Increases Wages 10%

Procter & Gamble Co. announced on August 22 a 10% increase in the hourly wages paid employees in its plants throughout the country, the increase being retroactive to August 1. It was stated by the officials that the wage increase had been made because of the uncertainty surrounding the completion of the soap industry's code. The company recently signed the President's blanket code.

The index of employment in the soap industry stood at 101.5 in July, 1933, as compared with 99.5 in June, 1933, 93.1 in July, 1932, and a base point of 100 for the 12-month average of 1926. The payroll index reading for July, 1933, was 84.9, as against 83.2 in June, 1933, and 82.6 in July, 1932.

A proposal has been introduced in the Ohio State Legislature to amend the state cosmetic tax so as to levy a 5% tax on toilet soaps.

S. Riggin & Co., St. Louis, wax polishes, have retained Jimm Daugherty, Inc., St. Louis, to direct their advertising account.



DISPLAY MADE BY CHARLES S. HIGGINS, MANUFACTURER OF THE FAMOUS GERMAN LAUNDRY SOAP, IN THE CARNIVAL PROCESSION LAST TUESDAY.

How soap was advertised a half-century ago. A drawing which appeared in the May 19, 1877, issue of the New York "Daily Graphic". The soap firm of Charles S. Hig-

gins, maker of the then famous German Laundry Soap, advertised in a carnival procession, a gala celebration of 1877.

SOAP presents a *perfuming problem* of a special character. To handle it successfully requires intimate knowledge of soap manufacturing and, above all, experience with soap perfumes.

We have done a considerable amount of work along those lines, and offer several series of soap perfumes of *tried worth*.

Send for *smelling samples*.

Almond	Lemon
Almond—Rose	Lilac
Almond—Cocoa	Lily
Antiseptic Odor	Mint
<i>Bouquets of great variety</i>	Narcissus
Carnation	Orange
Cedar	Oriental
Citrella	Patchouly
Cologne	Pine
Fougere	Pineapple
Gardenia	Rose
Geranium	Sandalwood
Girella	Sweet Pea
Jasmin	Verbena
Lavender	Violet

Also many odors for shampoo and liquid soap

van Ameringen-Haebler, Inc.

Aromatic Essentials

315 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
438 West 48th St., Los Angeles
42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

CHICAGO TRADE NOTES

CHICAGO Perfumery, Soap & Extract Association met August 29th at the Hamilton Club in Chicago to discuss the various codes under which the member companies will have to operate. H. S. Burr, first assistant to F. F. Roberts, chief of the National Recovery Administration in Chicago, gave a talk in which he outlined the advantages of cooperating with the government in their plan for recovery and strongly urged that every firm represented display the blue eagle. Following his speech, Mr. Burr answered questions regarding the codes. A resolution was adopted to give all possible cooperation to the government by following the provisions of the codes under which they must operate.

Max Rauer, chief chemist of F. W. Fitch Co., Des Moines, Iowa, and Mrs. Rauer were in Chicago the last week of August. Mr. Rauer attended to business matters while in town and with Mrs. Rauer spent considerable time at the Fair.

Frank Dedrick with Mrs. Dedrick and son Robert spent two weeks in Chicago last month visiting old friends and attending the Fair. Mr. Dedrick is perfumer at the Fort Ivory plant of Procter & Gamble. Before moving East Mr. Dedrick made his headquarter in Chicago.

Wolf Creek Soap Co., Dayton, Ohio, manufacturers of soap chips and laundry soaps, are now manufacturing toilet soaps as well and are marketing them under their trade mark "Wolf Creek."

T. B. Robertson Products Co., Chicago, manufacturers of sanitary supplies are now introducing a new liquid floor wax under the name Major-Glos. This wax is being used regularly on five of the major buildings at the World's Fair and has proven to be moisture-proof.

The next to the last tournament of the golf auxiliary of the Chicago Perfumery, Soap and Extract Association and the Chicago Drug and Chemical Association was held August 15th at the Westmoreland Country Club. The following prizes were awarded: Class A—first prize, Harry Dunning, American Commercial Alcohol, with 84-10, net 74; second prize, J. Wilhelm, George Lueders & Co., with 84-7, net 77; third prize, Geo. M. Van Kirk, G. M. Van Kirk & Associates, with 90-8, net 82. Class B—first prize, Harry B. Elwell, Pennsylvania Oil Co., with 87-17, net 70; second prize, P. A. Rising, Chas. Pfizer & Co., with 96-18, net 73; third prize, A. J. Anderson, Richard M. Krause & Co., with 98-18, net 80. Class C—first prize, P. J. Cosgrave, Drug Trade News, with 109-25, net 84; second prize, E. L. Drach, Abbott Laboratories, with 119-33, net 86; third prize, John

Buslee, Neumann, Buslee and Wolfe, Inc., with 112-25, net 87. Guest prizes were awarded to Burton T. Bush with 89-15, net 74, and C. Sipple with 87-12, net 75. A. C. Drury, who has been a consistent winner in class A got off to a bad start and, although his second nine was very good, couldn't quite overtake the leaders. The last tournament of the year was held at Olympia Fields.

A small booklet entitled "Somebody Loves a Salesman," reprinted from the July, 1933, issue of *The Flame*, organ of the Phoenix Metal Cap Co., Chicago, has been put out by the company. It is a clever criticism of the critic of the salesman, especially the numerous and sundry articles which tell salesmen what to do and not to do, how to dress, eat, sleep, and other things. Copies can be secured by addressing the company.

Manufacturers of packaging machinery have formed the Packaging Machinery Manufacturers' Institute and have filed a code of fair competition for the industry with the National Recovery Administration. H. H. Leonard, Consolidated Packaging Machinery Corp., is acting as chairman of the committee which will supervise code activities for the new group. The first annual meeting of the Institute will be held in October.

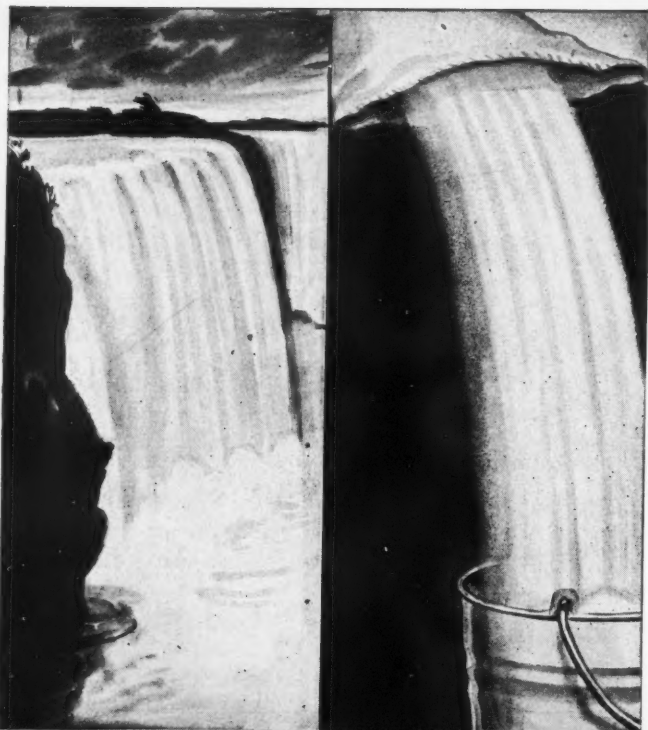
Monsanto Chemical Co. will erect a \$600,000 plant for the production of ethyl alcohol at the Everett, Mass., works of Monsanto's subsidiary, Merrimac Chemical Co. A new subsidiary will be formed, New England Alcohol Co., to operate the alcohol division.

Hercules Powder Co., Wilmington, has raised salaries of all employees by ten per cent. The company has been working on a five-day week for over a year. Recent further reduction in hours will give 400 additional men employment.

The industrial alcohol business of Rossville Alcohol & Chemical Co. has been acquired by Commercial Solvents Corp., the purchase price being 105,000 shares of Commercial Solvents stock and a cash payment for current assets.

French toilet soap sales to the United States show a tendency to increase, according to U. S. Dept. of Commerce figures. During the first four months of 1933 shipments aggregated 1,138 metric quintals, compared with 612 quintals in the corresponding period of 1932.

Magnus, Mabey & Reynard, Inc., essential oils and aromatics, have recently enlarged their offices, located at 32 Cliff Street, New York. The additional floor space will be occupied by the company's bookkeeping department, directors' room, technical library, advertising and mailing departments and will also be the headquarters for the city salesmen.



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GRASSELLI TRI-SODIUM PHOSPHATE

As our process permits GRASSELLI Tri-Sodium Phosphate to cure, it is FREE FLOWING.

Non-Sifting Packages. Shipped to you in barrels with paper liner—no loss either in transit or storage. Also comes in kegs and bags. Grades—fine, globular, medium and coarse.

Let us figure on your T. S. P. requirements. If you are in a hurry, call up our nearest branch.

*Let Us Also
Quote You On*

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A standard held high for 94 years

PERSONAL AND IMPERSONAL

A new washing formula has recently been developed by the laundry research department of Procter & Gamble Co. which is being featured currently in contacts of P & G chip soap salesmen with laundry owners. Meetings were held in New York and Chicago early in August at which the formula was explained to P & G salesmen by Thomas E. Waters, manager of the chip soap department, W. W. Bray of the laundry research department and H. H. Besuden of the chip soap department.

Brillo Manufacturing Company reported a net income of \$78,416 for the six months ended June 30 after all charges and taxes. This was equal, after preferred dividend, to 32½ cents a share on 160,000 common shares and compared with a net of \$57,671, or 19 cents a common share in the first half of 1932. Current assets of the company as of June 30 amounted to \$592,676 against \$585,693 in the first half of last year while current liabilities were \$87,181 as compared with \$85,998.

T. F. Kraft & Co., 420 South San Pedro St., Los Angeles, has introduced a new concentrated soap for household laundering. A retail stop price of 27c has been set on a 2½-lb. package. The new product is to be distributed through twelve western states from the Los Angeles and San Francisco offices of the firm.

Ogilvie Sister, New York, have introduced a new pine soapless shampoo. It is packaged in an 8-ounce bottle of the usual Ogilvie style.

E. T. Woods, plant engineer of National Oil Products Co., Harrison, N. J., has been appointed works manager of that company. He will have charge of the production and maintenance departments and the laboratories, and will retain his position of plant engineer.

Los Angeles Soap Co. has recently launched a radio advertising program on the west coast which includes short daily broadcasts by Kay White, globe trotter. Besides stimulating sales of "White King" granulated soap, many of her suggestions involving purchase of fancy groceries by consumers are meeting favor with coast grocers.

Peter L. Wagle, who for the last twenty-seven years had been an Eastern sales representative for Swift & Co., died August 20 at his home in New Brighton, Staten Island, N. Y., after a long illness. He was sixty-one years old.

E. H. Little, vice-president in charge of advertising for Colgate-Palmolive-Peet Co., has announced the appointment of Ken R. Dyke as general advertising manager. Mr. Dyke took up his new duties September 1. He was formerly vice-president of Johns-Mansville Sales Corp., and had previously been an executive in the advertising department of the United States Rubber Co. Mr. Dyke is chairman of the copy testing committee of the Association of National Advertisers, and is a member of the advertising review committee which was formed jointly by the ANA and the American Association of Advertising Agencies to aid in the elimination of practices "which tend to bring advertising and advertising claims into disrepute."

Plans are being pushed by American Cyanamid Co. and Pittsburgh Plate Glass Co. for the early completion of their alkali plant at Corpus Christi, Texas, which has been in project for the past two years. The plant when completed will be operated by Southern Alkali Corp., stock in which is owned jointly by American Cyanamid Co. and Pittsburgh Plate Glass Co.

The T. & T. Company has been organized in Peekskill, N. Y., to manufacture a waterless hand cleanser. It is being marketed under the name "Hand Klen." The new product is packed in large tubes, twelve to the carton, packed for counter, window or shelf display.

Service Laboratories, Ltd., is a new drug and toiletries manufacturing concern at 1244 Dufferin Street, Toronto, Ontario. F. W. C. Ross, formerly of New York, is president of the company.

Spencer Kellogg & Sons, Inc., Buffalo, have raised the quarterly dividend on their stock from 15 to 25 cents a share. The next dividend is payable September 30 to stockholders of record of September 15.



A RENAISSANCE to Mid-Victorian days seems to be in the offing. While we may not have the two-seated bicycle with us, there are many other indications of a return to the spirit of the "Gay Nineties."

Noticeably, there has been a decided change for the old fashioned Perfumes for Soaps. The sweet Bouquets of yore are again coming to the front. Modernize your soaps with the fragrant flowery scents of yesteryear. We suggest—

M. M. R. SOAP PERFUME OILS

Acacia MM&R
Bouquet 108 MM&R "Cashmere"
Brown Windsor MM&R
Gardenia MM&R
May Blossom MM&R
Peau de Spain MM&R
Hyacinthe MM&R
Wall Flower MM&R



"LINKS THE MARKET WITH THE MANUFACTURER"

MAGNUS, MABEE & REYNARD, INC.

32 Cliff St.

New York

Essential Oils

Aromatic Chemicals

Perfume Materials

a subscription to SOAP . . .

*will keep you
posted*

on everything of interest to manufacturers and jobbers of soaps, disinfectants, polishes, insecticides and related sanitary products . . .

*Special articles . . . news . . . markets
. . . patents . . . trademarks . . .
N. R. A. activities . . . technical developments, etc.*

Annual Charge - \$3.00

Send Checks to

MacNAIR - DORLAND CO.

136 LIBERTY STREET

NEW YORK

Bon Ami Company and subsidiaries reported a net profit of \$543,977 for the six months ended June 30 after charges and taxes. This was equal to \$2.47 a share on the class A stock and \$1.48 a share on the class B stock, after participating provisions. It compared with a profit of \$534,905, or \$2.42 per class A share and \$1.46 per class B share in the first half of 1932.

Continental Products Co., Newark, has introduced a new shipping carton and counter display for its steel wool brush cleanser, "Cleanser."

Procter & Gamble Distributing Co. has introduced a new smaller-sized package of "Dash" granulated soap. The new package contains 2½ lbs., and will retail at 17 to 19c. It was introduced in northern California early in August. Paul R. Parette, district manager of the company, reports that excellent co-operation is being given by California retail grocers in maintaining top prices.

Quality Brands, Inc., San Francisco, has been organized by H. W. Johnson to distribute a line of products through the grocery and drug trades of eleven Western states. A contract has been effected with C. A. Wall & Co., maker of "Kitchen Cleansing Creme," for exclusive distribution of that product.

Colgate-Palmolive-Peet Co. has acquired a 51% interest in Compania Nacional de Perfumeria, S. A. Havana, Cuba, at a price of \$200,000.

Stafford Allen & Sons, Ltd., London, is celebrating this summer the completion of one hundred years of business life. For the past thirty-five years the concern has been represented in United States by Ungerer & Co., New York. T. Edward Goodyear is the present chairman of the company.

C. F. O'Connor, located at 19,937 Frazier Drive, Rocky River, Ohio, advises that he contemplates opening a plant for the manufacture of soap.

Deshler Products Co., Deshler, Ohio, is marketing a new washing compound under the name "Sudemor."

Florasynt Laboratories, Inc., New York, has opened new and enlarged quarters in San Francisco at 607 Sansome St. Dr. Alexander Katz, secretary of the company who has recently been developing this territory, will have charge of the new office, succeeding W. T. Markillie who formerly represented Florasynt on the coast. Additional equipment, and laboratory facilities have been installed, and complete stocks of various perfume and flavoring materials will be carried.

Pacific Coast Potash Soap Manufacturers and Distributors Association and the Pacific Coast Soda Soap Manufacturers Association will probably combine into a single Pacific Coast soap association in the near future, according to advices from Los Angeles.

Michigan Cosmetic and Extract Association held a golf tournament recently at the Lakewood Golf and Country Club, Ontario, Canada. Another and final tournament has been planned for the near future at some course near Detroit.

Kitchener Soap Works, Kitchener, Ontario, has started manufacture of a new type cold-water soap.

S. Bayard Colgate, president of the Colgate-Palmolive-Peet Co., and Roscoe C. Edlund, general manager of the Association of American Soap and Glycerine Producers, represented that association at a meeting of the National Association of Manufacturers held at the Edgewater Beach Hotel, Chicago, on Sept. 15. Mr. Colgate acted for R. R. Deupree, head of Procter & Gamble Co. and president of the Soap and Glycerine Producers, at the manufacturers meeting which considered complications growing out of the N.R.A.

The Oil Trades Association of New York will hold its annual golf tournament at the Pelham Country Club, Pelham, N. Y., on Thursday, Sept. 28. This is a change from the original date set which was Sept. 21. The annual dinner of the association will be held Oct. 26 at the Waldorf-Astoria Hotel, New York.

Colgate-Palmolive-Peet Co. are named defendants in a patent suit filed early this month by the Eastern Manufacturers, Inc., Jersey City, N. J. The petition asks for the assignment to the plaintiff of patents 515,412 and 918,603, covering a process for deodorization and the removal of unsaponifiable matter from soap. The plaintiff states that under an agreement by which the defendant was permitted to use the Zieley Process for the manufacture of fatty acids from paraffin oil, the two patents named are property of the plaintiff.

Directors of Armour & Co., Chicago, have dropped the proposed financial reorganization plan for that company which was to have been submitted to stockholders on August 31 as a result of strong opposition from a stockholders' committee. It is reported that 65 per cent of the stockholders favored the plan, but that 10 per cent by demanding an appraisal and cash settlement for their stock, brought about its defeat.

Don B. Clement will act as supervisor of sales agents for Coty, Inc., New York. Mr. Clement has been in the toilet goods field for the past twenty years, the past four in association with McKesson & Robbins, Inc.

The DUO-OVAL

Smaller size Duo-Ovals are excellent for hand lotions, extracts, etc. Larger sizes for mineral oil, medicinal tonics, rubbing alcohol, antiseptics, cough syrups, cold remedies, cod liver oil, etc.



A "New-Deal" Design That Does Double Sales Duty

● Here's a container styled definitely for changing market trends of the New Deal Era. With present developments in the drug trade and allied industries, today's package must do a *super* display job. For new products, particularly, Duo-Oval is a fighting salesman. "Sales appeal" is written into its every feature.

An individual design on each face of this *OnIzed* glass container combined with distinctive label treatment, permits you to package different lines of products in the one style of container—and to cut bottle costs by ordering in large quantities. Its sparkling clearness gives striking display value to your product. The strong vertical lines proclaim dignity. Handsome, black screw caps add smartness and provide an air-tight seal.

Because of the Duo-Oval's unusual characteristics, we have not deemed it advisable to offer it as a regular stock item. It will be manufactured only to the special order of those whose requirements justify large volume production. Inquiries are invited.

Owens-Illinois Glass Company, Toledo, Ohio



OWENS-ILLINOIS

1873 • SIXTIETH ANNIVERSARY • 1933

RECORD OF TRADE-MARKS

The following trade-marks were published in the August issue of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

DRAWING OF FRENCH BARBER—Describing toilet and shaving soap. Filed by Pinaud, Inc., New York, May 17, 1933. Claims use since Apr. 19, 1933.

ARANGEA—This in solid letters describing toilet soaps. Filed by Roger & Gallet, Paris, June 8, 1933. Claims use since Dec. 13, 1932.

A V C—This in solid letters joined by bar, describing insecticide. Filed by Anti-Vermin Crusaders, Cincinnati, May 21, 1932. Claims use since May 1, 1929.

TUX—This in solid letters describing insecticide. Filed by Baldwin Laboratories, Saegerstown, Pa., Mar. 28, 1933. Claims use since March, 1923.

R STERITE—This in solid letters describing antiseptic. Filed by Sterite Laboratories, Los Angeles, Apr. 19, 1933. Claims use since Mar. 4, 1931.

KING BEE ANT CHASER—This in solid letters with drawing of bee and ant, describing ant exterminator. Filed by Eureka Chemical Co., Sylacauga, Ala., May 15, 1933. Claims use since Jan. 4, 1924.

DEE'S LEMON TOOTH PASTE—This in solid letters on carton describing tooth paste. Filed by Dee's Mfg. Co., Chicago, May 19, 1933. Claims use since Apr. 15, 1933.

MISTOFUME—This in solid letters describing insecticide. Filed by S. B. Penick & Co., New York, June 1, 1933. Claims use since May 10, 1933.

PYROPO—This in solid letters describing insecticide. Filed by S. B. Penick & Co., New York, June 1, 1933. Claims use since May 10, 1933.

ANT-BATE—This on reverse plate describing ant and roach poison. Filed by Lethelin Products Co., Manhasset, N. Y., June 15, 1933. Claims use since May 19, 1933.

NUTEX—This in solid letters describing cleaning compound. Filed by National Chemical Corp., Seattle, May 22, 1933. Claims use since June 1, 1932.

ALLSTATE—This in solid letters within outline map of United States describing disinfectants and insecticides. Filed by Sears, Roebuck & Co., Chicago, Mar. 15, 1933. Claims use since Nov. 30, 1932.

VITZONE—This in solid letters describing insecticide, deodorant, disinfectant, cleaner, etc. Filed by Fuld Bros., Inc., Baltimore, Apr. 26, 1933. Claims use since Nov. 1, 1932.

STOM A SEPTINE—This in solid letters describing antiseptic. Filed by Stomaseptine Co., New York, May 15, 1933. Claims use since June 1, 1930.

ROK—This in solid letters within circle describing insecticide. Filed by Rok Laboratories, Inc., North Kansas City, Mo., May 13, 1933. Claims use since Jan. 1, 1933.

FIVE STAR—This in script, with stars, describing antiseptic. Filed by Wildroot Co., Buffalo, June 8, 1933. Claims use since May 10, 1933.

SAV-A-FOOD—This in solid letters describing deodorizer for refrigerators. Filed by Puro Co., St. Louis, June 12, 1933. Claims use since May 1, 1933.

BLUTOO—This in solid letters describing washing compound. Filed by Blutoo Mfg. Co., Philadelphia, June 20, 1933. Claims use since Dec. 20, 1932.

WHITE EAGLE—This in solid letters with sketch of eagle, describing soap. Filed by Colgate-Palmolive-Peet Co., Chicago, Nov. 3, 1932. Claims use since 1894.

ARCTIC BEAR—This in solid letters with head of polar bear describing shaving cream. Filed by Arctic Bear Laboratories, Inc., New York, June 16, 1933. Claims use since May 26, 1933.

ZONO-KLOR—This in solid letters with figure on horse impaling insects, describing disinfectants, insecticides, germicides, etc. Filed by Chas. H. Lewis, New York, Jan. 30, 1933. Claims use since January, 1928.

DR. CORLEY'S SO-KLEEN—This on triangular reverse plate describing tooth powder and antiseptic. Filed by B. L. Corley, San Francisco, May 13, 1933. Claims use since Apr. 15, 1933.

TICK—This in solid letters with sketch of clock describing insecticides. Filed by Derris, Inc., New York, May 31, 1933. Claims use since May 15, 1933.

WALCOTE MANOR—This in solid letters describing insecticides. Filed by Iron City Wiping Materials Co., Pittsburgh, June 15, 1933. Claims use since June, 1908.

SPRAYRITE—This in solid letters with sketches of two

spray guns, describing insecticide. Filed by Virginia Fruit Fumigation Co., West Norfolk, Va., June 15, 1933. Claims use since Mar. 1, 1932.

CLEAN-O-MIST—This in solid letters describing floor cleaner. Filed by Higley Chemical Co., Dubuque, Iowa, Feb. 24, 1933. Claims use since Sept. 25, 1930.

LAUNETTE—This in solid letters describing washing powder. Filed by Launette Products Co., Dayton, Ohio, Mar. 18, 1933. Claims use since July 1, 1932.

PRACTI-KREME—This on reverse plate describing hand cleaner. Filed by Benjamin Meltzer, New York, June 17, 1933. Claims use since June 15, 1933.

NU-TRIM—This in solid letters describing paste cleaner. Filed by Stanco, Inc., New York, June 17, 1933. Claims use since June 6, 1933.

KLEEN-HOUSE—This in solid letters with cross section showing interior of house, describing cleaning compound. Filed by Kleen Chemical Co., Philadelphia, June 20, 1933. Claims use since Dec. 1, 1932.

FI-BA-SO—This in solid letters describing cleaning preparation for hands. Filed by Fi-Ba-So Products Co., Tyngsboro, Mass., July 14, 1933. Claims use since May 20, 1933.

NATEX—This in broken letters describing naphthenic acids for use in soap making. Filed by Texas Co., New York, Sept. 21, 1932. Claims use since Aug. 23, 1932.

GOSOFAR—This in script describing cleaning compound. Filed by Amazul Products Co., Philadelphia, June 20, 1933. Claims use since Jan. 5, 1933.

FLYFO—This on reverse plate describing insecticide and disinfectant. Filed by G. E. Specialty Co., Brooklyn, June 22, 1933. Claims use since June, 1931.

CABINOL—This in letters having surface resembling the grain of wood, describing preparation for killing wood-destroying insects. Filed by Hercules Powder Co., Wilmington, June 29, 1933. Claims use since May 26, 1933.

BARCLAY & CO.—This in solid letters describing toilet soap. Filed by Lanman & Kemp-Barclay & Co., Inc., New York, July 20, 1933. Claims use since 1880.

A TO Z—This on reverse plate, with words "Mosby's Antiseptic," describing antiseptic. Filed by Mosby's A to Z Co., Cincinnati, June 20, 1933. Claims use since Oct. 27, 1932.

OIL EMULSION—This in outline letters across face of figure "83," describing insecticides. Filed by General Chemical Co., New York, June 24, 1933. Claims use since April 1, 1933.

KILLEX—This in solid letters describing insecticides. Filed by Sherwin-Williams Co., Cleveland, July 15, 1933. Claims use since June 28, 1933.

Trade Marks Granted

305,078. Polish. Sears, Roebuck and Co., Chicago. Filed January 26, 1933. Serial No. 334,370. Published May 16, 1933. Class 4.

305,092. Granulated Soap. Nassour Bros., Inc., Los Angeles. Filed March 31, 1933. Serial No. 336,294. Published May 16, 1933. Class 4.

305,096. Toilet Soap, Stove Polish, and Auto Cleaner. Sears, Roebuck and Co., Chicago. Filed March 15, 1933. Serial No. 335,696. Published May 16, 1933. Class 4.

305,098. Soap. Fitzpatrick Bros., Inc., Chicago. Filed March 20, 1933. Serial No. 335,860. Published May 16, 1933. Class 4.

305,099. Soap. Fitzpatrick Bros., Inc., Chicago. Filed March 20, 1933. Serial No. 335,861. Published May 16, 1933. Class 4.

305,309. Polishing Preparation. Paroglaz Products, Buffalo, N. Y. Filed January 14, 1933. Serial No. 333,943. Published May 23, 1933. Class 16.

305,318. Insecticide. Hercules Powder Co., Wilmington. Filed March 18, 1933. Serial No. 335,822. Published May 16, 1933. Class 6.

305,349. Toilet Soaps and Shaving Soap. Pinaud, Inc., New York. Filed February 10, 1933. Serial No. 334,844. Published May 30, 1933. Class 4.

305,351. Tooth Paste. McCarthy Brothers, Milwaukee. Filed February 6, 1933. Serial No. 334,685. Published May 16, 1933. Class 6.

305,356. Polish. Schwarz Paper Co., Lincoln, Nebr. Filed March 16, 1933. Serial No. 335,705. Published May 23, 1933. Class 16.

305,377. Antiseptics and Germicides. Norwich Pharmacal Co., Norwich, N. Y. Filed March 23, 1933. Serial No. 336,016. Published May 23, 1933. Class 6.

305,378. Antiseptics, Germicides. Norwich Pharmacal Co., Norwich, N. Y. Filed March 23, 1933. Serial No. 336,017. Published May 23, 1933. Class 6.

305,383. Dentifrices. R. L. Watkins Co., New York. Filed March 18, 1933. Serial No. 335,840. Published May 16, 1933. Class 6.

305,385. Blueing. Hewitt Bros. Soap Co., Dayton, Ohio. Filed March 18, 1933. Serial No. 335,823. Published May 16, 1933. Class 6.

305,387. Rodent Exterminator. Skat-A-Rat Corp., Providence, R. I. Filed October 27, 1932. Serial No. 331,625. Published January 24, 1933. Class 6.

305,402. Soap. Iowa Soap Co., Burlington, Iowa. Filed April 17, 1933. Serial No. 336,870. Published May 30, 1933. Class 4.

305,415. Preparation for Exterminating Rodents. C. B. Dolge Co., Westport, Conn. Filed September 24, 1932. Serial No. 330,622. Published November 22, 1932. Class 6.

305,443. Germicide, Disinfectant, and Deodorant. Onota Chemical Co., Pittsfield, Mass. Filed May 21, 1932. Serial No. 327,320. Published January 3, 1933. Class 6.

305,462. Automobile Polish. Racar Products Co., Seaford, N. Y. Filed April 4, 1933. Serial No. 336,402. Published May 23, 1933. Class 16.

305,479. Soap. Babiglo Co., New York. Filed April 19, 1932. Serial No. 326,255. Published May 30, 1933. Class 4.

305,481. Laundry Soap. Sunland Soap Co., Los Angeles. Filed March 29, 1933. Serial No. 336,185. Published May 30, 1933. Class 4.

305,490. Shaving Cream. San Antonio Chemical Co., San Antonio, Tex. Filed April 3, 1933. Serial No. 336,351. Published May 30, 1933. Class 4.

305,545. An Antiseptic and Germicide. Parke, Davis & Company, Detroit, Mich. Filed April 10, 1933. Serial No. 336,622. Published June 13, 1933. Class 6.

305,556. Germicidal and Antiseptic Preparation. Harry J. Block, Ellensburg, Wash. Filed April 11, 1933. Serial No. 336,701. Published June 13, 1933. Class 6.

305,566. Polishing Wax. Standard Oil Company of California, San Francisco. Filed April 22, 1933. Serial No. 337,094. Published June 6, 1933. Class 16.

305,656. Insecticides. Phillips Petroleum Co., Bartlesville, Okla. Filed December 7, 1932. Serial No. 332,854. Published May 30, 1933. Class 6.

305,692. Insecticide. Johnson Oil Refining Co., Chicago. Filed December 31, 1932. Serial No. 333,556. Published May 30, 1933. Class 6.

305,695. Washing Fluid-Disinfectant-Bleach. C. M. Kimball Co., Everett, Mass. Filed January 7, 1933. Serial No. 333,734. Published June 6, 1933. Class 6.

305,724. Horticultural Disinfectant. Bayer Semesan Co., Wilmington. Filed March 17, 1933. Serial No. 335,761. Published May 30, 1933. Class 6.

305,757. Antiseptic, Disinfectants, Dentifrice, Deodorant, Roach Powder. Mutual Service, Newark. Filed February 17, 1933. Serial No. 335,054. Published May 30, 1933. Class 6.

305,763. Insecticide. Phillips Petroleum Co., Bartlesville, Okla. Filed March 30, 1933. Serial No. 336,230. Published May 30, 1933. Class 6.

305,773. Dentifrice. E. R. Squibb & Sons, New York. Filed April 1, 1933. Serial No. 336,336. Published May 30, 1933. Class 6.

305,779. Flea and Lice Powder and Animal Shampoo. J. L. Hopkins & Co., New York. Filed April 3, 1933. Serial No. 336,353. Published June 6, 1933. Class 6.

305,783. Liquid Polishing Wax. Economics Laboratory, Inc., St. Paul. Filed April 3, 1933. Serial No. 336,352. Published June 13, 1933. Class 16.

305,800. Disinfectant, Deodorant, Cleanser. Olgon Chemical Co., Chicago. Filed March 24, 1933. Serial No. 336,050. Published May 30, 1933. Class 6.

305,811. Water Softening Preparation. H. & L. Products Co., Linden, N. J. Filed March 28, 1933. Serial No. 336,157. Published May 30, 1933. Class 6.

305,874. Dental Cream. Colgate-Palmolive-Peet Co., Chicago. Filed April 24, 1933. Serial No. 337,104. Published June 6, 1933. Class 6.

305,875. Antiseptic. Bi-Nitro Syndicate, Hollywood. Filed April 27, 1933. Serial No. 337,210. Published June 6, 1933. Class 6.

305,876. Shaving Cream. Ovelmo Co., Fort Wayne, Ind. Filed April 27, 1933. Serial No. 337,234. Published June 6, 1933. Class 4.

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

815 15th St., N. W., Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 1,916,403. Tooth Paste, Patented July 4, 1933, by Frederick C. Atkinson, Indianapolis, Ind., assignor to John G. Praed. A dentifrice comprising a paste including a polishing agent which normally reacts with terpenes, a natural oil of citrus fruit, and a binder, the natural terpenes having been substantially eliminated from the oil.

No. 1,919,298. Disinfectant, Patented July 25, 1933, by Rudolf Lehmann, Uerdingen-on-the-Rhine, Franz Heckmanns and Karl Dobmaier, Leverkusen-on-the-Rhine, and Jakob Willems, Crefeld, Germany, assignors to Winthrop Chemical Company, Inc., New York, N. Y. As a new disinfectant an additional compound of an aromatic hydroxy compound with an aliphatic amino alcohol, which may be substituted in the amino group by one or more hydroxyalkyl groups.

No. 1,920,026. Elimination of Insect Infestation, Patented July 25, 1933, by Nathaniel Tischler, Bristol, Pa., assignor to Rohm & Haas Company. An insecticide and fumigant comprising a mixture of tertiary butyl alcohol and carbon tetrachloride in such amounts as to be non-inflammable at ordinary temperatures.

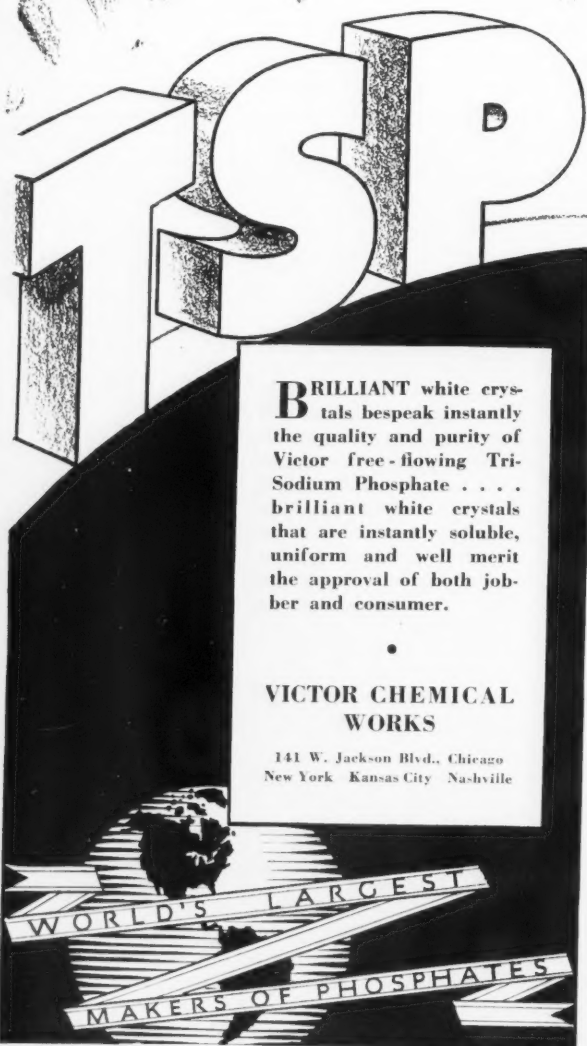
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Central City Chemical Co., Chicago, has been granted registration of the notation "Lix" as a trade mark for insecticide over the objection of Vick Chemical Company whose protest was based on the claim that the mark is confusingly similar to "Vicks." The decision of the commissioner of patents was based on the ground that the descriptive qualities and purposes of "Lix" and of "Vicks" are dissimilar to such an extent as to make confusion almost impossible.

—o—

Stockholders of Clorox Chemical Company, Oakland, have unanimously approved an amendment to the articles of incorporation providing for a reduction in authorized shares from 250,000 to 120,000. The outstanding 113,756 shares are not affected by the move. Chairman of the Board Robert Dalziel, President W. C. R. Murray and all other directors and officers of the company were reelected.

Brilliant White Crystals VICTOR



B RILLIANT white crystals bespeak instantly the quality and purity of Victor free-flowing Tri-Sodium Phosphate . . . brilliant white crystals that are instantly soluble, uniform and well merit the approval of both jobber and consumer.

VICTOR CHEMICAL WORKS

141 W. Jackson Blvd., Chicago
New York Kansas City Nashville

SPECIALTY SOAPS

LIQUID SOAP BASE

Coco Oil—60%—Natural, Opal,
Green

LIQUID SOAPS

Coconut 10% to 45%
Olive Oil 10% to 30%

Colored and Perfumed

SCRUBBING SOAPS

Pine, Sassafras, Plain

LIQUID SHAMPOOS

Coconut Oil . . 30% to 45%
Olive Oil 30%
Castile 30%

POWDERED and GRANULATED SOAPS

Castile, U. S. P.
Coco Castile 50-50
Pure Coconut

SOFT POTASH SOAPS

Light and Dark
U. S. P. 9th and 10th

PHONE CUMBERLAND 6-2800

KRANICH SOAP CO.
54-60 RICHARDS ST. BROOKLYN, N.Y.

CONTRACTS AWARDED

Swift & Co., San Antonio, has been awarded a contract for 37,800 lbs. laundry soap at a price of 3.3c for supply to the Fort Sam Houston quartermaster. Also awarded 1,800 cans scouring powder at 2.5c. Jas. Good, Philadelphia, awarded 1,042 cakes grit soap at 3.74c. Emery Industries, Cincinnati, awarded 2,000 lbs. candles at 12c.

Newell Gutrad Co., San Francisco, has been awarded contract to supply the U. S. Navy with 778,000 pounds of salt water soap, to be split up as follows: 600,000 lbs. to Mare Island, Calif.; 108,000 lbs. to San Diego, Calif.; 60,000 lbs. to Philadelphia; 10,000 lbs. to Boston.

American Soap & Washoline Co. entered a bid of 8.17c lb. on 100 lbs. of soap powder for delivery to General Supply Committee, Washington. On an additional quantity a bid of 6.5c was entered.

Newell-Gutrad Co., San Francisco, was low bidder on 30,000 lbs. salt water soap for the Panama Canal supply department in a recent bidding with a quotation of \$705 and on 1,500 lbs. grit soap with \$82.50. Colgate-Palmolive-Peet Co. was low bidder on 4,500 lbs. laundry soap with a quote of \$135; also low on 3,000 lbs. chip soap with a figure of \$135. Stevens Soap Corp. bid low on 10,000 lbs. tri sodium phosphate with \$266.

B. P. Ducas Co. has been awarded a contract for 5,000 lbs. boiler compound for the New York City engineer at a price of 6c lb.

General Soap Co. was low bidder on 20,000 cakes toilet soap for the Panama Canal supply department in a recent bidding with a quotation of 2.27c cake.

Newell Gutrad Co. has been awarded the Department of Interior's Indian Service contract for 80,000 pounds of floating soap and 5,000 pounds of grit soap.

The Bureau of Raw Materials index number of 23 oils and fats for August, 1933, based on the average monthly prices for the period from August, 1909, to July, 1914, which is the same period as that used by the

Department of Agriculture in determining the index number for all farm products is 77.7, as compared to 72 for all farm products, as computed by the Department of Agriculture. The index numbers of some of the principal oils and fats are: Chinawood oil, 95.2; coconut oil, 46.0; linseed oil, 116.9; cottonseed oil, 80.4; corn oil, 112.9; olive oil foots, 85.7; palm oil, 64.0; rapeseed oil, 105.5; sesame oil, 93.2; tallow, 51.6; Newfoundland cod oil, 59.2; whale oil, 103.4; lard, 56.9; Oleo oil, No. 1, 65.7; peanut oil, 71.8; oleo stearine, 55.3; soya bean oil, 135.5; castor oil, 97.3.

Lever Guarantees Niger Stock

Recently the Niger Co., London, gave notice of repayment of £3,663,530 of outstanding 5½ per cent guaranteed debenture stock. Nearly £1,000,000 of that amount will be redeemed out of the company's free cash resources, and the balance will be provided by an issue of £2,747,648 in 4 per cent consolidated debenture stock, which was recently placed on the market at 102 per cent. As the new stock is unconditionally guaranteed as to principal and interest by Lever Brothers, Ltd., whose average profits for the past four years were more than 25 times the annual amount required for interest and sinking fund on the debenture stock of the company, the subscription list for cash applications met with an overwhelming response.

The Niger Co., in common with other West African ventures, has passed through trying times, and in 1931 profits fell sharply owing to the extremely difficult trading conditions. For 1932 the profits recovered and were nearly double at £605,339. The firm, which is now entirely a holding company, its principal investment being 65 per cent of the stock of the United Africa Co., has since its inception taken a leading part in the development of Nigeria.

In 1929 an amalgamation of interests was arranged with a competitor, the African & Eastern Trade Corporation, and the United Africa Co. was formed, which also took over the West African interests of the then Margarine Union, now Unilever. Lever Bros., though its holding of 99 per cent of the capital of the Niger Co., together with Unilever and its subsidiaries, controls 80 per cent of the issued capital of the United Africa Co.

Market Report on ESSENTIAL OILS AND AROMATICS

(As of September 9, 1933)

NEW YORK—Mixed movements characterized the market for essential oils and perfuming materials, there being a number of sharp rises and falls spread through the list. The mint oils broke sharply in price as new crop oil began to be offered. Producers made a series of cuts in an effort to push buying. Another oil to drop in price was cassia under the stress of competition among sellers. On the other hand the Messina oils and anise oil were points of considerable strength in the market, the latter moving up as a result of higher import costs.

ANISE OIL

Quotations advanced 5c lb. this period, this oil being quoted currently at 45c to 46c lb. Higher cost of replacements was given as the cause for the advance.

CASSIA OIL

Cassia prices eased off this period after the sharp advance of a few weeks ago as competition developed among sellers. Quotations dropped 8c to as low as \$1.02 lb. in some quarters. At the lower figures more buying interest was evident, much of it coming from the soap trade. The oil was firm at the lowest level and it was indicated in most quarters that the cost of replacement would not allow any further drop.

CITRONELLA OIL

Citronella oil moved lower at one point in the period but later recovered the loss, closing unchanged from last period at 38c to 40c lb.

PENNYROYAL OIL

Imported oil was advanced by sellers this period, leading to an echo in domestic oil. Indications are that production this year will not come up to previous estimates. Current quotations on imported oil range from \$1.40 to \$1.50, with domestic oil at \$1.95 to \$2.00.

PEPPERMINT OIL

Producers reduced the price of peppermint oil this period in an effort to attract more interest from buyers in their offerings of new crop oil. After reaching a high of \$3.75 lb. for redistilled oil last period the successive reductions carried the price down to an inside price of \$2.85 at the close of this period. Spearmint oil prices went through the same steps, falling from \$1.40 to \$1.10 lb. At the lower levels prices were quite firm, and considerable business is reported to have been done at those levels.

CITRONELLOL

An advance was made in the inside price, bringing the lowest quotation up to \$2.80 lb.

Opportunities for Export

The following opportunities for export of American soaps and allied products have come to the Bureau of Foreign and Domestic Commerce, Washington, D. C. American manufacturers can secure the full details of the inquiries by communicating with the Bureau, care of the Department of Commerce. Be sure to mention the number of Foreign Trade Opportunity in writing.

4565	Toilet, floor and scrub-	Newfound-	
	bing soaps	land	Agency
4572	Laundry soap	Porto Rico	Agency
4586	Dental preparations	Italy	Agency
4618	Laundry soaps	Porto Rico	Agency or Purchase
4748	Pyrethrum extract	Germany	Purchase
4770	Shaving soaps	Venezuela	Agency or Purchase
†4044a	Arsenical insecticides	Czechoslovakia	Agency or purchase
†4046a	Pyrethrum flowers and extract and paradichlorbenzol	Czechoslovakia	Agency or purchase
†4086	Cleaning compounds and polishes	Mexico	Agency or purchase
*4136	Toilet soaps	Canada	Agency or purchase
*4151	Soap making machinery	Bolivia	Purchase
*4359	Soaps	Australia	Purchase
*4370	Saddle soap	Canada	Purchase or agency
†4516	Insecticides	Canada	Purchase or agency
4945	Soap chips, cleansers and powder	Denmark	Purchase or agency
4997	Agricultural insecticides	Spain	Purchase or agency
5016	Pyrethrum and other insecticide materials	Panama	Purchase
5051	Toilet soaps	N. W. I.	Purchase or agency
5577	Medicated soaps	Cuba	Agency or purchase
5589	Dentifrices	Honduras	Agency or purchase
5284	Toilet soaps	Sumatra	Agency or purchase
5316	Soaps	China	Agency
5330	Pyrethrum flowers and extract	Germany	Agency or purchase
5336	Shaving cream in bulk	Canada	Purchase
5395	Insecticides, cattle dips, soaps, raticides, etc.	Costa Rica	Agency or purchase
5515	Soaps and cleaners	Panama	Agency or purchase

Net income of Continental Can Co. for the 12 months ended June 30 was \$5,431,347, equal to \$3.13 per common share. This compares with \$4,401,899 in the previous year. The company reports a continued improvement in sales.

Dodge & Olcott Co., New York, has issued its catalog and price list of essential oils, aromatics, etc., for August and September, 1933.

Market Report on SOAP AND DISINFECTANT CHEMICALS

(As of September 9, 1933)

NEW YORK—Activity continued at a very encouraging pace in the soap and disinfectant trade during the period just concluded. There was no apparent let-up, in spite of the concentration of much of the industry on code dealings and the working out of the NRA. Prices of raw materials were firm all along the line, with sellers expecting a resumption of the upward trend as soon as the usual fall pick-up in activity is apparent. There were no new developments of particular importance in the aspect of the chemical market, with the possible exception of higher prices for crude glycerin.

ALCOHOL

The new alcohol schedule put into effect last month is reported as being rigidly adhered to, with demand quiet due to the fact that most users are well contracted ahead. A new manufacturer has entered the field within the past month and will shortly start production at Everett, Mass.

ALKALIES

Only a very moderate seasonal slackening was noted in the demand for alkalis this period, demand from the soap, glass, and textile industries holding up well and cutting into stocks. A new plant in the Texas area is being completed rapidly and may enter into the contract picture next year.

CRESYLIC ACID

After the rise of last month cresylic acid prices steadied this period and were unchanged at 42c to 45c gal. Less demand from consumers led to a quiet market this period.

GLYCERIN

Glycerin continued to advance in price this period, crudes rising a half cent a pound. Demand was very quiet, but sellers showed little tendency to weaken in their ideas of values to secure business.

PYRETHRUM

Pyrethrum prices continue to be firmly maintained after the recent substantial advance. The range continues at about 27c to 30c lb.

ROSIN

Rosin prices moved narrowly back and forth this period, ending up only a few cents away from the levels of last month. Late in the period the tendency was firmer, and there is a general belief that the fall season

will see a substantial increase in demand. The closing schedule follows: gum rosin, grade B, \$5.02; H, \$5.02; K, \$5.02; N, \$5.05; WG, \$5.35; WW, \$5.50; wood, \$4.73 to \$4.76.

P & G Lose "Chipso" Mark

Abandonment of the use of the mark "Chipso" on soap flakes and granules has been required of Procter & Gamble Co. in a recent decision of the U. S. Commissioner of Patents, upholding a petition filed by the J. I. Prescott Co., Passaic, N. J. The latter concern registered the mark "Chase-O" in 1913 for use on detergent crystals, eight years prior to the P & G registration. In the testimony advanced consumers and dealers testified that they had experienced confusion, and it was indicated by sales figures that sales of "Chase-O" had decreased as sales of "Chipso" increased.

The Lustre Co. has begun manufacturing polishes and cleaners for metal, glass, etc., at 18 Sachem Street, Lynn, Mass. James Megquier is proprietor of the company.

Soap Code Revised

(From Page 19)

tolerance of 10%*. Any hours worked over 8 hours per day shall be considered overtime.

For paragraph 6 of President's Agreement:

No factory or mechanical worker or artisan in the North shall be paid less than 40c per hour unless the hourly rate for the same class of work on July 15, 1929, was less than 40c per hour in which latter case they shall receive not less than the hourly rate of pay on July 15, 1929, and in no event less than 30c per hour. No factory or mechanical worker or artisan in the South shall be paid less than 35c per hour unless the hourly rate for the same class of work on July 15, 1929, was less than 35c per hour in which latter case they shall be paid not less than the hourly rate of pay on June 15, 1929, and in no event, less than 25c per hour. Learners or apprentices during a 60-day period of apprenticeship may be paid not less than 80% of the minimum wage and shall comprise not more than 5% of the total number of employees. Overtime shall be paid at the rate of time and one-third. Where female employees do substantially the same work or perform substantially the same duties they shall be paid the same rate of pay as male employees are paid for doing such work or per-

* This means, of course, that the average for engineers and firemen may be a 44-hour week averaged over a 4 weeks' period.

(Turn to Page 53)

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Controlled Production:—

We collect, render and refine all of the raw materials used in our stearic acid and red oil. This close control, not available in any other brand, insures high quality products by eliminating low grade raw materials. Let us submit samples and prices. There is no substitute for quality. Use them in your

Dry Cleaning Soaps

Shaving Soaps

Special Cleaners

Polishes

Liquid Soaps

FANCY - EXTRA and SPECIAL

TALLOW

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**Theobald Animal
By-Products Refinery**

KEARNY, N. J.

ESTABLISHED 1914

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PRIVATE
LABEL**

SPECIAL CLEANSERS

Our list includes the most efficient cleanser compounded for your particular trade.

SUPER ALKALIES

These are products which are adapted for special uses where stronger alkalies are required.

SNOWFLAKE CRYSTALS

The accepted base for quality bath crystals.

SCOURING COMPOUND

An effective abrasive product for cleaning floors, marble, etc.

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This exceptionally pure product is an excellent deodorant and moth preventive.

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For insecticide sprays and metal polishes.

PUT Solvay quality into your packages and get more out of your private brand. Write for Booklet SC7 for particulars on products for your special trade.

SOLVAY SALES CORPORATION

*Alkalies and Chemical Products Manufactured by
The Solvay Process Company*

61 BROADWAY

NEW YORK



**SOLVAY
PRODUCTS**

Market Report on TALLOW, GREASES AND OILS

(As of September 9, 1933)

NEW YORK—Prices of soapmaking oils, fats and greases continued this period the decline which set in toward the close of last period. Practically every item in the list was lower, and some of the declines amounted to a cent a pound or more. The sharp drop in commodity prices was one factor responsible for the precipitate decline, another influence being the hog slaughtering program of the A.A.A. which is expected to send from fifteen to thirty million pounds of grease to the market. With the fall in prices buyers regained their old cautious buying habits, holding off to take advantage of the full extent of the drop. Purchases were for current use, and little anticipation of future needs took place.

COCONUT OIL

Copra is off twenty points from last month's close, being quoted at a cent and a half a pound on the coast. Coconut oil was also lower, with quotations dropping faster in the New York market than on the coast. New York barrels were off a cent and a half, being quoted at 3c lb.

CORN OIL

The drop in the grain market hit the price of corn oil sharply. Mill tanks fell a cent to $4\frac{3}{4}$ c lb., and New York barrels were off a cent and a half, being quoted at 6c lb.

COTTONSEED OIL

Cottonseed oil was a cent a pound lower this period, being one of the first oils to participate in the decline due to its close association with the commodity and security markets. Crude oil is quoted at $3\frac{7}{8}$ c lb., with P.S.Y. at $4\frac{3}{4}$ c lb.

GREASE

Yellow and house grease dropped to $2\frac{7}{8}$ c lb. this period, falling a half-cent. The hog purchasing plan of the administration is being watched with interest, and unofficial estimates point to the possibility of fifteen to thirty million pounds of grease being added to present stocks. It is stated that these stocks will be disposed of outside the usual consuming channels, but it is difficult to see how this excess will find a market without replacing some competing product.

OLIVE OIL

Olive oil was one of the few strong spots in the market this period, demand holding good and quotations re-

maining practically unchanged at 72c to 75c gal. Trade in foots was dull at a level of 6c per lb.

TALLOW

Tallow held fairly firm this period, yielding only a quarter of a cent and being priced currently at $3\frac{1}{2}$ c lb. for city extra.

Renderers File Code

A code of fair competition of the rendering industry has been filed with NRA officials in Washington by the Association of American Producers of Domestic Inedible Fats. It has also been filed with the Agricultural Adjustment Administration. One section of the code refers to imports, the association being empowered to submit complaints to the President with reference to imports of marine, vegetable and animal oils in competition with the products of the domestic rendering industry. Another section of the code, covering purchasing, provides that no tallow can be sold at less than replacement cost of raw materials plus the cost of collecting, converting and selling the tallow and cracklings, based upon the highest price at which the products were sold on the day preceding.

C-P-P First Half Net \$765,121

Colgate-Palmolive-Peet Co. earned net profit of \$765,121 during the six months ended June 30, comparing with a net of \$1,080,711 in the corresponding period of 1932. After deduction of the 6% preferred dividend the net equalled only about 1 cent a share on the 1,999,970 common shares outstanding, as compared with 13c a share in the first six months of 1932. Operations during the first quarter of 1933 were conducted at a loss, but starting in April an improvement was noted which continued through July. Current assets as of June 30 were \$37,847,524 as compared with \$39,931,100 a year previous. Liabilities were \$5,068,734 as compared with \$5,978,238.

Under the plan of the Agricultural Adjustment Administration for the marketing of sows and pigs to cut down the over-supply of these animals, it has been anticipated that a tremendous amount of grease would be thrown on the market. Later estimates revise the amount downward considerably, estimates now ranging from 10,000,000 to 30,000,000 lbs. The A.A.A. has announced that this grease would be disposed of outside the regular channels of usage.

for your soap products—

STAUFFER BRAND

Caustic Soda

"STAUFFER BRAND" Caustic Soda can be supplied either solid or liquid, in drums or tank cars. It is uniform, pure and worth while using in your soap products. Send your next Caustic Soda inquiry to us.

also makers of Carbon Tetrachloride for cleaners


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SYNTHETIC
MADE FROM AMERICAN TURPENTINE

Terpineol, C. P.
WATER WHITE

Menthol Crystals
SYNTHETIC



Thymol, U. S. P.
PRIME WHITE CRYSTALS

PRODUCTS OF SCHERING-KAHLBAUM, A. G., BERLIN

SHERKA CHEMICAL CO. INC.

75 WEST STREET • NEW YORK
TELEPHONE • BOWLING GREEN 9-7482

CURRENT PRICE QUOTATIONS

As of September 9, 1933

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums.....lb.	.08½	.10
Acid, Boric, bbls., 99½%.....ton	95.00	100.00
Cresylic, 97% dk., drums.....gal.	.42	.45
97-99%, pale, drums.....gal.	—	.45
Oxalic, bbls.....lb.	.11	.11¼
Adeps Lanae, hydrous, bbls.....lb.	.14	.15
Anhydrous, bbls.....lb.	.15	.16
Alcohol, Ethyl, U. S. P., bbls.....gal.	2.45	2.59
Complete Denat., No. 5, drums., ex. gal.	.34	.42
Alum. Potash lump.....lb.	.03	.03¼
Ammonia Water, 260, drums, wks.....lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls.....lb.	.08	.12½
Bleaching Powder, drums.....100 lb.	1.75	2.35
Borax, pd., cryst., bbls., kegs.....ton	50.00	55.00
Carbon Tetrachloride, car lots.....lb.	—	.05¼
L. C. L.....lb.	.06	.08½
Caustic, see Soda Caustic, Potash Caustic		
China Clay, flr.....ton	10.00	25.00
Cresol, U. S. P., drums.....lb.	.09	.10
Cresote Oil.....gal.	.11½	.12½
Feldspar.....ton	14.00	15.50
(200 to 325 mesh)		
Formaldehyde, bbls.....lb.	.06	.07
Fullers Earth.....ton	15.00	24.00
Glycerine, C. P., drums.....lb.	.10¼	.10½
Dynamite, drums.....lb.	.09	.09¾
Saponification, drums.....lb.	.06¼	.06½
Soaps, Lye, drums.....lb.	.05¾	.06
Hexalin, drums.....lb.	—	.30
Kieselguhr, bags.....ton	—	35.00
Lanolin, see Adeps Lanae.		
Lime, live, bbls.....per bbl.	1.70	2.20
Mercury Bichloride, kegs.....lb.	.93	1.08
Naphthalene, ref. flakes, bbls.....lb.	.04¾	.06
Nitrobenzene (Myrbane) drums.....lb.	.09½	.11
Paradichlorobenzene, bbls., kegs.....lb.	.15	.23
Paraformaldehyde, kegs.....lb.	.38	.39
Petrolatum, bbls. (as to color).....lb.	.017½	.06¾
Phenol, (Carbolic Acid), drums.....lb.	.14¼	.16
Pine Oil, bbls.....gal.	.59	.65
Potash, Caustic, drums.....lb.	.06½	.07½
Flake.....lb.	.07	.08½
Potassium Bichronate, casks.....lb.	.08	.08½
Pumice Stone, powd.....100 lb.	2.50	4.00
Rosins (600 lb. bbls. gross for net)—		
Grade B to H, basis 280 lbs.....bbl.	5.02	5.02
Grade K to N.....bbl.	5.02	5.05
Grade WG and WW.....bbl.	5.35	5.50
Wood.....bbl.	4.73	4.76
Rotten Stone, pwd. bbls.....lb.	.02½	.04½
Silica, Ref., floated.....ton	18.00	22.00
Soap, Mottled.....lb.	.04½	.04¾
Olive Castle, bars.....lb.	.09	.12
powder.....lb.	.17	.22
Olive Oil Foot.....lb.	.04½	.06
Powdered White, U. S. P.....lb.	.16	.20
Green, U. S. P.....lb.	.06½	.08
Tallow Chips.....lb.	.06	.06½
Whale Oil, bbls.....lb.	.05	.06
Soda Ash, contract, wks, bags, bbls. 100 lb.	1.17½	1.43
Car lots, in bulk.....	—	1.05
Soda Caustic, Cont., wks., sld.....100 lb.	—	2.55
Flake.....lb.	—	2.95
Liquid, tanks.....lb.	2.15	2.20

Soda Sal., bbls.....100 lb.	1.05	1.15
Sodium Chloride (Salt).....ton	11.40	14.00
Sodium Fluoride, bbls.....lb.	.07½	.08½
Sodium Hydrosulphite, bbls.....lb.	.22	.26
Sodium Silicate, 40 deg., drum.....100 lb.	.75	.80
Drums, 60 deg. wks.....100 lb.	—	1.65
In tanks, 15c. less per hundred, wks.		
Tar Acid Oils, 15-25%.....gal.	.21	.25
Frisodium Phosphate, bags, bbls.....lb.	.03	.0390
Zinc Lxide, lead free.....lb.	.06	.06¼
Zinc Stearate, bbls.....lb.	.16	.18

Oils—Fats—Greases

Castor, No. 1, bbls.....lb.	.10¼	.11
No. 3, bbls.....lb.	.09¾	.10½
Coconut		
Ceylon, Coast Tanks.....lb.	.027½	.031½
Cochin, barrels, N. Y.....lb.	.04½	Nom.
Manila, tanks, N. Y.....lb.	.02¾	.03
Tanks, Pacific coast.....lb.	.027½	.031½
Cod, Newfound, bbls.....gal.	.29	.32
Copra, bulk, Coast.....lb.	.0150	.0160
Corn, tanks, mills.....lb.	.04¾	.047½
Bbls., N. Y.....lb.	.06	.06¼
Cottonseed, crude, tanks, mill.....lb.	—	.037½
PSY.....lb.	—	.04¾
Degras, Amer., bbls.....lb.	.02¾	.03½
English, bbls.....lb.	.03¾	.04
German, bbls.....lb.	.03¾	.03¾
Neutral, bbls.....lb.	.06¼	.08
Greases, choice white, bbls., N. Y.....lb.	.03	.03½
Yellow.....lb.	.027½	.03
House.....lb.	.027½	.03
Lard, prime, steam, tierces.....lb.	.06½	.06¼
Compound tierces.....lb.	.07½	.08
Lard Oil		
Extra, bbls.....lb.	—	.07¾
Extra, No. 1, bbls.....lb.	—	.07½
No. 2, bbls.....lb.	—	.07
Linseed, raw, bbls., spot.....lb.	.1030	.1070
Tanks, raw.....lb.	—	.0970
Boiled, 5 bbls. lots.....lb.	—	.1150
Menhaden, Crude, tanks, Balt.....gal.	.17	Nom.
Oleo Oil, No. 1, bbls., N. Y.....lb.	—	.067½
No. 2, bbls., N. Y.....lb.	—	.06¾
Olive, denatured, bbls., N. Y.....gal.	.72	.75
Foots, bbls., N. Y.....lb.	.06	.06¼
Palm.....lb.	.04	.04½
Palm Kernel, casks, denatured.....lb.	.04	Nom.
Peanut, domestic tanks.....lb.	.04½	Nom.
Red Oil, distilled, bbls.....lb.	.07	.075½
Saponified, bbls.....lb.	.07	.075½
Tanks.....lb.	—	.06
Soya Bean, domestic tanks, N. Y.....lb.	—	.08
Stearic Acid		
Double pressed.....lb.	.091½	.10
Triple pressed, bgs.....lb.	.12¼	.12¾
Stearine, oleo, bbls.....lb.	.05¼	.05½
Tallow, special, f. o. b. plant.....lb.	—	.03¾
City, ex. loose, f. o. b. plant.....lb.	—	.03½
Tallow, oils, acidless, tanks, N. Y.....lb.	—	.06¾
Bbls., c-1, N. Y.....lb.	—	.07¼
Whale, crude.....lb.	.03½	.04
refined.....lb.	.06¾	.07

4 Important Reasons

why you should specify

BENETCO STEEL CONTAINERS



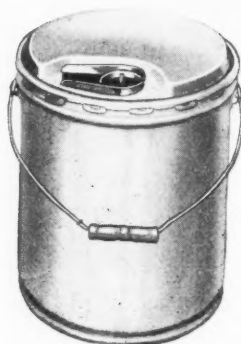
1. Pails are received with clean interiors and symmetrical tops because they are shipped from our factories with their covers on.



3. The large slotted lugs of Benetco Containers are crimped liquid-tight in a few seconds and are pried up as quickly by inserting a pointed tool in the slot.

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Southern Division
Cortez & Bienville Sts.
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New Benetco Swivel-Spout Por-Pail

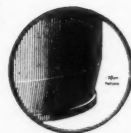
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WILSON & BENNETT MFG. CO.

GENERAL OFFICES
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CHICAGO

Republic 0200



2. The non-telescoping offset bottom of these containers make a firm stack which simplifies handling and cuts storage space 25 per cent.



4. The bead serves as a measuring device in filling, reinforces the body of the container, protects the lithography against marring and the sealing against damaging blows.

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COLUMBIA BRAND

98% - 100%
CAUSTIC SODA

76% Na₂O

Solid - Flake
Ground - Liquid

99% - 100%
SODA ASH

58% Na₂O

Light-Dense
Feather

THE COLUMBIA ALKALI CORPORATION

Executive Sales Offices, EMPIRE STATE BUILDING, NEW YORK CITY

Branch Sales Offices

431-451 St. Clair St., CHICAGO; Carew Tower, CINCINNATI; Santa Fe Terminal Bldg., DALLAS
BARBERTON, OHIO

Essential Oils

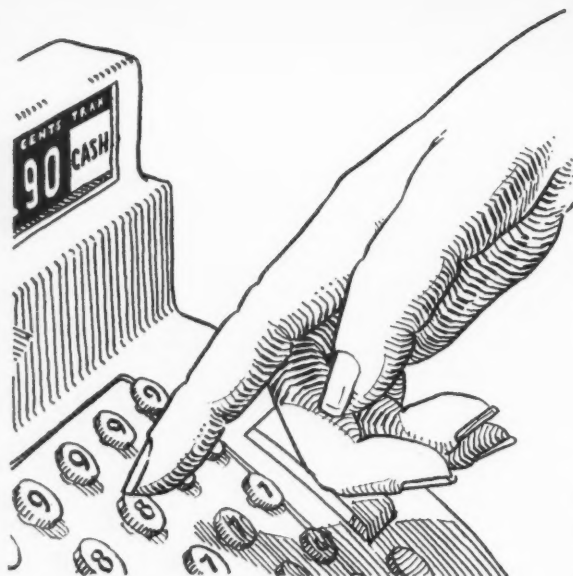
Almond, Bitter, U. S. P.	lb.	\$2.25	\$2.50
Bitter, F. F. P. A.	lb.	2.50	2.75
Sweet, cans.	lb.	.55	.57
Anise, cans, U. S. P.	lb.	.45	.46
Apricot, Kernel, cans.	lb.	.20	.22
Bay, tins.		1.30	1.70
Bergamot, coppers.	lb.	1.60	2.00
Artificial.	lb.	1.05	1.15
Birch Tar, rect., tins.	lb.	.45	.50
Crude, tins.	lb.	.12	.13
Bois de Rose, Brazilian.	lb.	.95	1.10
Cayenne.	lb.	2.50	2.75
Cade, cans.	lb.	.26	.28
Cajuput, native, tins.	lb.	.47	.50
Calamus, tins.	lb.	2.75	3.25
Camphor, Sassy, drums.	lb.	—	.11
White, drums.	lb.	—	.15
Cananga, native, tins.	lb.	2.00	2.05
Rectified, tins.	lb.	2.50	2.55
Caraway Seed.	lb.	1.80	1.85
Cassia, Redistilled, U. S. P.	lb.	1.02	1.10
drums.	lb.	—	.97
Cedar Leaf, tins.	lb.	.67	.72
Cedar Wood, light, drums.	lb.	.28	.32
Citronella, Java, drums.	lb.	.44	.51
Citronella, Ceylon, drums.	lb.	.38	.39
Cloves, U. S. P., cans.	lb.	.89	.94
Eucalyptus, Austl., U. S. P., cans.	lb.	.23	.25
Fennel, U. S. P., tins.	lb.	1.15	1.30
Geranium, African, cans.	lb.	4.25	5.25
Bourbon, tins.	lb.	4.50	5.25
Hemlock, tins.	lb.	.60	.70
Lavender, U. S. P., tins.	lb.	1.70	3.50
Spike, Spanish, cans.	lb.	.57	.62
Lemon, Ital., U. S. P.	lb.	.95	1.25
Lemongrass, native, cans.	lb.	.95	1.00
Linaloe, Mex., cases.	lb.	1.35	1.45
Neroli, Artificial.	lb.	10.00	20.00
Nutmeg, U. S. P., tins.	lb.	1.10	1.15
Orange, Sweet, W. Ind., tins.	lb.	1.30	1.45
Italian cop.	lb.	1.40	1.70
Distilled.	lb.	.55	.60
Origanum, cans, tech.	lb.	.25	.50
Patchouli.	lb.	3.00	3.50
Pennyroyal, dom.	lb.	1.95	2.00
Imported.	lb.	1.40	1.50
Peppermint, nat., cases.	lb.	2.60	2.70
Redis., U. S. P., cases.	lb.	2.85	3.10
Petit Grain, S. A. tins.	lb.	1.00	1.05
Pine Needle, Siberian.	lb.	.77	.80
Rose, Natural.	oz.	6.00	15.00
Artificial.	oz.	2.00	2.75
Rosemary, U. S. P., tins.	lb.	.33	.40
Tech., lb. tins.	lb.	.22	.27
Sandalwood, E. Ind., U. S. P.	lb.	5.50	6.00
Sassafras, U. S. P.	lb.	.75	1.00
Artificial.	lb.	.19	.21
Spearmint, U. S. P.	lb.	1.10	1.15
Thyme, red, U. S. P.	lb.	.50	.70
White, U. S. P.	lb.	.60	.80
Vetivert, Bourbon.	lb.	4.75	5.00
Java.	lb.	16.00	20.00
Ylang Ylang, Bourbon.	lb.	3.50	5.50

Aromatic Chemicals

Acetophenone, C. P.	lb.	\$1.50	\$2.25
Amyl Cinnamic Aldehyde.	lb.	3.50	4.25
Anethol.	lb.	1.00	1.10
Benzaldehyde, tech.	lb.	.60	.65
U. S. P.	lb.	1.10	1.30
Benzyl, Acetate.	lb.	.60	1.00
Alcohol.	lb.	.75	1.15
Citral.	lb.	1.90	2.20
Citronellal.	lb.	2.25	2.50
Citronellol.	lb.	2.80	3.00
Citronellyl Acetate.	lb.	4.50	7.00
Coumarin.	lb.	3.10	3.30
Cymene, drums.	gal.	.90	1.25
Diphenyl oxide.	lb.	1.05	1.25
Eucalyptol, U. S. P.	lb.	.55	.65
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic.	lb.	1.25	2.00
Imported.	lb.	2.00	3.00
Geranyl Acetate.	lb.	2.50	4.00
Heliotropin.	lb.	1.85	2.10
Hydroxycitronellal.	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone.	lb.	3.60	6.50
Iso-Eugenol.	lb.	3.00	4.25
Linalool.	lb.	1.65	2.20
Linalyl Acetate.	lb.	3.00	4.25
Menthol.	lb.	3.50	3.60
Methyl Acetophenone.	lb.	2.50	3.00
Anthranilate.	lb.	2.15	3.20
Paracresol.	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette.	lb.	5.75	6.00
Ketone.	lb.	6.25	6.50
Moskene.	lb.	5.00	6.00
Xylene.	lb.	2.00	2.50
Phenylacetaldehyde.	lb.	4.00	6.50
Phenylacetic Acid, 1 lb., bot.	lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.25	4.50
Rhodinol.	lb.	6.00	9.50
Safrol.	lb.	.23	.25
Terpineol, C. P., 1,000 lb. drs.	lb.	.33	.34
Cans.	lb.	.35	.36
Terpinyl Acetate, 25 lb. cans.	lb.	.75	.90
Thymol, U. S. P.	lb.	1.40	1.50
Vanillin, U. S. P.	lb.	4.50	5.75
Yara Yara.	lb.	1.30	2.00

Miscellaneous

Insect powder, bbls.	lb.	.28	.30
Concentrated Extract			
5 to 1.	gal.	1.58	1.70
15 to 1.	gal.	4.40	4.65
20 to 1.	gal.	5.95	6.00
30 to 1.	gal.	8.75	9.00
Gums—			
Arabic, Amb. Sts.	lb.	.07½	.08
White, powdered.	lb.	.11	.12
Karaya, powdered No. 1.	lb.	.10	.11
Tragacanth, Aleppo, No. 1.	lb.	1.00	1.05
Sorts.	lb.	.11	.12
Waxes—			
Bayberry, bgs.	lb.	.14	.15
Bees, white.	lb.	.32	.35
African, bgs.	lb.	.18½	.26
Refined, yel.	lb.	.22	
Candelilla, bgs.	lb.	.09	.09½
Carnauba, No. 1.	lb.	.29	.30
No. 2, Yel.	lb.	.28	.29
No. 3, Chalky.	lb.	.13½	.14
Japan, cases.	lb.	.07	.07½
Paraffin, ref. 125-130.	lb.	.03¾	.04¼



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Soap Code Revised

(From Page 45)

forming such duties. This paragraph establishes a guaranteed minimum rate of pay regardless of whether the employee is compensated on the basis of a time rate or on piece work performance. The Southern area is hereby defined to include North Carolina, South Carolina, Tennessee, Arkansas, Georgia, Alabama, Mississippi, Louisiana, Texas, Florida.

Among those who attended the Chicago meeting at which the soap code was adopted, were the following:

R. R. Dupree, Procter & Gamble Co., Cincinnati.
 Bayard Colgate, Colgate-Palmolive-Peet Co., Chicago.
 N. N. Dalton, Colgate-Palmolive-Peet Co., Chicago.
 John Bader, Zillessen & Bader, Inc., Riverdale, N. J.
 J. F. Forsyth, Gold Dust Corp., New York.
 R. H. Young, The Davies-Young Soap Co., Dayton, Ohio.
 Daniel McIver, Original Bradford Soap Wks., West Warwick, R. I.
 Chas. A. Pearce, Colgate-Palmolive-Peet Co., Chicago.
 G. A. Eastwood, Armour & Company, Chicago.
 F. A. Countway, Lever Brothers Co., Cambridge, Mass.
 Russell White, Lever Bros. Co., Cambridge, Mass.
 J. S. Goldbaum, Fels & Co., Philadelphia.
 R. M. Johnston, Swift & Co., Chicago.
 Nils S. Dahl, John T. Stanley Co., New York.
 C. F. Young, The Davies-Young Soap Co., Dayton, Ohio.
 F. C. Adams, The Andrew Jergens Co., Cincinnati.
 J. H. Weiss, Cudahy Packing Co., Chicago.
 C. S. Meyer, Van Camp Oil Products Co., Louisville, Ky.
 Wm. D. Gooch, Potter Drug & Chemical Corp., Malden, Mass.
 J. Courtney Fitzpatrick, Fitzpatrick Bros., Chicago.
 John R. Curson, Harris Soap Co., Buffalo, N. Y.
 John Hanser, Jr., John Hanser Soap Co., Milwaukee.
 C. E. Gordon, Gordon Allen, Ltd., Oakland, Calif.

Stanton M. Smith, The Holbrook Mfg. Co., Jersey City, N. J.
 Geo. F. Young, Chas. W. Young & Co., Philadelphia.
 T. V. DuBois, The DuBois Soap Co., Cincinnati.
 W. M. Kelso, Green Oil Soap Co., Chicago.
 Geo. L. Simmonds, U. S. Sanitary Spec. Corp., Chicago.
 T. Everett Starrett, J. O. Draper Co., Pawtucket, R. I.
 Albert S. Selig, The Selig Co., Atlanta, Ga.
 J. A. Millner, Lanair Co., Chicago.
 R. R. Baker, Minnesota Chemical Co., St. Paul, Minn.
 I. Katz, J. Eavenson & Sons, Camden, N. J.
 David M. Emms, Walter R. Kirk, Inc., Chicago.
 J. M. Hewitt, Hewitt Soap Co., Dayton, O.
 F. C. Robinson, American Compound Co., Chicago.
 D. C. Alexander, The J. R. Watkins Co., Winona, Minn.
 H. R. Taylor, Carbite Soap Co. (Carbite Prod. Co.), Chicago.
 E. E. McDow, Antiseptol Co., Chicago.
 Wrisley B. Oleson, Allen B. Wrisley Co., Chicago.
 G. P. Peck, Beck's Products Co., St. Louis.
 M. H. Fairchild, M. H. Fairchild & Bro., Chicago.
 Vincent J. Halaska, Acme Chem. Co., Milwaukee.
 H. D. Banta, Iowa Soap Co., Burlington, Ia.
 J. L. Brann, Huntington Laboratories, Inc., Huntington, Ind.
 John W. Morgan, Enoch Morgan's Sons Co., New York.
 M. J. Osborn, Economics Laboratory, Inc., St. Paul, Minn.
 A. H. Leifgren, National Soap & Chemical Co., Minneapolis, Minn.
 W. C. Wollen, Olive Oil Soap Co., Paterson, N. J.
 E. L. Holman, Holman Soap Co., Chicago.
 Frank J. Zorn, North Coast Chemical & Soap Wks., Seattle, Wash.
 Carter D. Poland, Poland Soap Wks., Inc., Anniston, Ala.
 C. E. Bertolet, Laurel Soap Mfg. Co., Philadelphia.
 Wm. Newton, Haskins Bros. & Co., Omaha, Nebr.
 Frank Katlin, General Soap Co., Chicago.
 Frank R. Schmidt, Geo. A. Schmidt Co., Chicago.
 G. R. Fulton, Beach Soap Co., Lawrence, Mass.
 Oscar M. Burke, Manhattan Soap Co., New York.
 Albert Steiner, Cincinnati Soap Co., Cincinnati.
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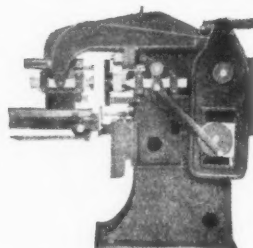
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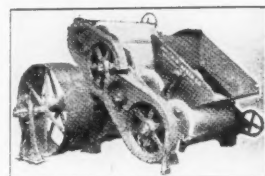
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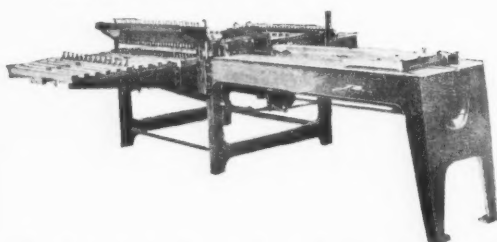
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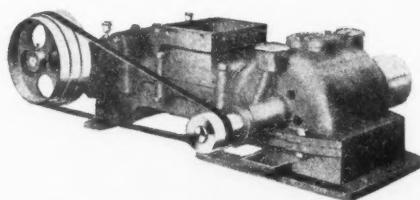
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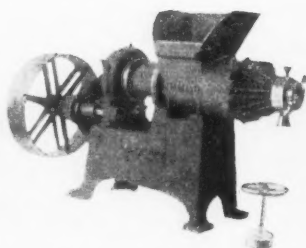
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PRODUCTION SECTION

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Hardened Fish Oil Soaps

A Study of Their Effects on Lathering Power

HARDENED fish oil has become an important soap fat in Japan. Originally the oil was shipped as sardine oil and enjoyed a large trade until exports dropped for various reasons. The oil later became interesting to soap makers in the form of the hydrogenated product. Today this latter product is used rather widely for making soap, although its odor is frequently bad. This distinguishes it markedly from hardened whale oil or seal oil, which are available practically odorless. Of course, hardened sardine oil is a true fish oil, while whale oil and seal oil are obtained from sea mammals.

An interesting study has been made of the effect of hardened Japanese fish oil on the lathering quality of soap by Dr. G. Knigge, who reports on the results of his investigation in *Seifensieder Zeitung*, 1933, pages 255 to 256. The experiments had to be carried out on soaps made specially for this purpose in the laboratory. The trouble with factory-made soaps is that they contain variable proportions of unsaponified fat, salt, soda and free alkali, all of which may have an appreciable effect on the determination of the lathering power. Furthermore, it is practically impossible to carry through in the plant a series of saponifications in which the same stock mixture is always used with the sole variation of the proportion of hardened fish oil. The yield of curd soap also varies in plant operations. Variable quantities of niger are left in the kettle. The quality of the constituents of the stock mixture also vary according to conditions. The practice of leaving the niger and part of the soap from a previous saponification in the kettle likewise confuses the results.

The hardened Japanese fish oil used in making the soaps in this investigation, had the following composition:

Acid number 11.8 equal to 5.98 per cent free fatty acids.
Ester number 174.7 equal to 92.53 per cent glycerides.
Saponification number 186.5 equal to 98.51 per cent saponifiable, 0.30 per cent unsaponifiable.
Average molecular weight of the fatty acids 284.4.
Total saponification number 197.2. Titer 50.7 degrees.

The following raw materials were used in making up the remainder of the stock mixtures: rosin (acid number 167), coconut oil (saponification number 255), tallow (saponification number 196), peanut oil fatty oil acids (saponification number 193).

THE following method was used to make soap which were entirely free from unsaponified fats and salt and which always contained the same percentage of free alkali. One hundred grams of the mixed stock were filled into a roomy, round-bottomed flask, 50 ccm. of 90 per cent, ethyl alcohol were added and the calculated quantity of sodium hydroxide solution with the addition of two grams in excess was poured in. The flask was placed on a water bath and boiled for one hour to obtain complete saponification. The alcohol was then removed by distillation, the soap dissolved in hot water and the solution evaporated. The residue after complete evaporation was dried, so that the last traces of alcohol were removed. This method gave soaps which were perfectly alike in all respects except that they were

made from stock mixtures containing varying percentages of tallow and hardened fats.

The first experimental stock mixture had the following composition:

- 10 grams of hardened Japanese fish oil
- 10 grams of rosin
- 10 grams of coconut oil
- 50 grams of tallow
- 20 grams of peanut oil fatty acids

The average saponification number of this stock mixture was 199.45. Sodium hydroxide solution, containing 37 per cent NaOH, was used for saponification. The quantity required was calculated from the following formula. $X = V \cdot f \cdot Z/p$. In this formula, V denotes the saponification number of the stock mixture, f the alkali factor, Z the quantity of fat in kilograms and p the percentage of NaOH in the caustic soda liquor. If the corresponding numerical quantities are substituted for these factors, the formula becomes . . . 199.45 x 0.713 x 0.1/37 x 10 or 38.5, which is the theoretical quantity of sodium hydroxide solution required for saponification. The actual quantity used in this saponification was 40.5 grams.

The second stock mixture consisted of the following ingredients:

- 20 grams of hardened Japanese fish oil
- 10 grams of rosin
- 10 grams of coconut oil
- 40 grams of tallow
- 20 grams of peanut oil fatty acids

The saponification number of this stock mixture was 196.5 and 40 grams of caustic soda lye were used in the saponification.

The third stock mixture was composed as follows:

- 30 grams of hardened Japanese fish oil
- 10 grams of rosin
- 10 grams of coconut oil
- 30 grams of tallow
- 20 grams of peanut oil fatty acids

The average saponification number of the mixture was 195.5 and 39.7 grams of caustic soda lye were used in the saponification.

The method of obtaining alcohol-free dry soap was the same as described in the saponification of the first stock mixture. In all three cases the sum of the proportions of hardened Japanese fish oil and tallow is always 60 grams or 60 per cent of the entire stock mixture. The proportions of these two ingredients varied while the rest remained constant. The three soaps obtained from these mixtures were completely saponified; they did not contain any unsaponified substance. The free alkali content of the first soap was 0.03 per cent NaOH, of the second 0.05 per cent NaOH, and of the third 0.05 per cent NaOH. The slight difference in the NaOH contents of the second and third soaps as compared with the first can have no appreciable effect on the results of these comparative experiments.

The author is fully aware of the fact that the composition of these soaps is different from that of the ordinary curd soaps. The latter are mostly obtained by salting-out over niger and hence are freed from the greatest part of the glycerin. This is of no importance in these comparative experiments. The sole purpose of the process chosen for making the soap was to obtain products, which do not contain disturbing impurities, from the same composition of stock with the exception of variation of the hardened fish oil content. Such soaps were obtained and made possible the accurate determination of the action of the hardened fat on the lathering power of the soap.

THE lathering coefficient or lathering power of the soap was determined in Stiepel and Dörner bottles. Absolute results are not obtainable with either apparatus. Inasmuch as the results required in these experiments are and must be purely comparative, the author used the Stiepel apparatus, which gives the quantity of soap solution converted into lather. The apparatus affords useful results for these comparative experiments, when the tests are made by the same person under similar conditions. Stock solutions were made with the three soaps in boiled, distilled water. The concentration of these solutions was 0.3 gram fatty acid in 100 ccm. water. The soaps were analyzed only to determine the fatty acid content. The first soap contained 74.04 per cent of fatty acid hydrate, the second 65.69 per cent and the third 64.64 per cent. The solutions were prepared in such manner that 2.025 grams of the first soap were dissolved in 500 ccm. of water. One hundred ccm. of this solution contained 0.405 gram of soap equivalent to 0.3 gram of fatty acid. 2.275 grams of the second soap and 2.320 grams of the third soap were each dissolved in 500 ccm. of water.

One hundred ccm. samples of these solutions were pipetted off and run into the Stiepel apparatus. Duration of shaking was 30 seconds and was as regular as possible. The coefficient of lathering was recorded after 3, 10 and 15 minutes. The lathering test was carried out in one series of experiments at a temperature of 20 degrees C and in the other series at 50 degrees C. The results are shown in the following tabulation:

Cold Test 20° C.	Soap I	Soap II	Soap III
	10% Hardened Oil	20% Hardened Fat	30% Hardened Fat
Reading After			
3 minutes.....	over 50.0	over 50.0	41.0
10 minutes.....	47.5	40.0	28.5
15 minutes.....	39.0	31.0	24.5
Warm test			
3 minutes.....	28.5	37.5	21.0
10 minutes.....	11.5	16.0	8.5
15 minutes.....	9.0	12.0	6.5

In the case of soaps I and II the coefficient of lathering could not be read off the apparatus after three minutes in the cold test, since the depth of lather lay below the end of the scale. As may be expected, the coefficient of lathering decreases in the cold test as the hardened

Japanese fish oil content of the stock increases. In the warm test the figures are all lower than in the cold test. The striking point about the results obtained in the warm test is that the figures for soap made from a stock mixture containing 20 per cent of hardened Japanese fish oil were higher than for soap made from ten per cent hardened oil. However, the figures decrease sharply when the soap is made from 30 per cent hardened fish oil.

While the results obtained are too meagre to furnish a proper basis for making conclusions, nevertheless it may be said that the content of hardened Japanese fish oil in the stock mixture should not be much more than ten per cent for toilet soap. Soaps, such as laundry soap, which are mostly used in hot water, may be made from stock mixtures containing as much as 20 per cent hardened Japanese fish oil. A higher content interferes with lathering properties to too great an extent.

Shaving Cream with Ammonia Soap

Alkali soaps react with ammonia soap in the presence of sufficient water to liberate ammonia, and when the mixture of ammonia and alkali soaps is used in shaving, rapid and effective softening of the beard is obtained which can be removed even with a dull razor. The lather obtained is not very thick, but is sufficient. The reaction between the soaps take place on the face. Hence the soap must not contain sufficient water to cause the reaction to take place in the tube. A certain degree of decomposition ensues, but this is insufficient to destroy the effectiveness of the soap. In making this soap, ammonium stearate in the form of a dry powder is worked up in the usual manner with a potash-soda soap. Thus good results are obtained by saponifying 100 parts of stearin with 20 to 25 parts of concentrated aqua ammonia, rubbing the solid product into a powder and mixing with the alkali soap in the proportion of one to two. Dr. Viktor Scheffer, Budapest, Hungary. German Patent No. 575,790, filed July 2, 1930.

Fatty Acids from Paraffin

Fatty acids are obtained from the products of the destructive oxidation of hydrocarbons containing at least eight carbon atoms, or of mixtures containing a preponderant quantity of such hydrocarbons. The oxidation products are saponified, and, preferably after removal of the unsaponifiable matter forming a supernatant layer on the resulting soap solution, the soap, either in the form of solution or after drying and comminution, is extracted with liquefied paraffin hydrocarbons containing at least ten carbon atoms in the molecule. The operation is effected preferably at a temperature between 15 and 110 degrees C. The hydrocarbons used for the extraction may be similar to the starting material subjected to oxidation, and may consist of liquefied paraffin waxes, paraffin oil, middle oils or similar fractions from the destructive hydrogenation of

oils or tars. Thus, hard paraffin wax is oxidized at 70 degrees C. and five atmospheres pressure with nitrogen oxides, the product saponified at 200 degrees C. with aqueous soda solution, and the upper layer formed withdrawn. The soap solution is extracted three times with paraffin wax. The solvent containing unsaponifiable constituents in solution is removed and returned to the oxidation vessel. Paraffin wax is oxidized with nitrogen oxides at a temperature of 60 degrees C. and four atmospheres pressure. The saponification is carried out as above and the soap solution is allowed to flow down an extraction tower in countercurrent with paraffin wax of the grade used as initial material heated to 90 degrees C. The soap solution, which is thereby mainly freed from unsaponifiable constituents, is drawn off at the bottom of the tower. A distillate, which is obtained by the destructive hydrogenation of American Mid-continent oil, is oxidized with nitric acid. The product is saponified with caustic soda solution, the upper layer is separated, and the soap stirred twice with some of the original distillate to extract unsaponifiable constituents. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. British Patent No. 368,869.

Bleaching Linseed Soft Soap

Linseed oil is used in most cases in Germany for the manufacture of yellow soft soap. The color of this soap has been found to be of peculiar significance to the user and inasmuch as the soap sells at a low price and a light color is demanded, the manufacturer must choose a bleaching process that entails as little expense as possible. The soap cannot be bleached simply with chlorine, as the odor remains even though the residual chlorine liquor may be completely removed from the treated soap. The chlorine combines with the albuminous constituents of the linseed oil, giving a compound that has a strong chlorine odor.

Hence, according to Dr. T. Ruemele in *Seifensieder Zeitung*, 1933, page 487, it becomes necessary first to treat the linseed oil used for making these soft soaps, so that the albuminous constituents are removed. The most common process has been to allow the linseed oil to settle in suitable tanks or to filter it. However, this procedure only removes the insoluble albuminous substances. Chemical methods must be used to precipitate the soluble albumens which can then be readily removed. It is of course essential that the presence of soluble albumens in the linseed oil should be determined before subjecting it to this treatment. Soluble albumens are present when a flocculent separation is obtained in a sample of the clear oil heated rapidly to about 270 degrees C. The linseed oil should be heated for half an hour at a temperature of 90 degrees C. while being agitated and then filtered. This treatment removes all the soluble albumens. When purified linseed oil of this type is used in making the yellow soft soap, the product can be readily bleached with inexpensive chlorine bleach liquors.

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Curd Soap-Niger Separation

The speed of separation of curd soap from niger can be determined by taking a sample of about 60 cm. of the kettle soap in the grained state and allowing the sample to settle in a graduated cylinder at about 98 degrees C. The percentage-volume of the niger which settles to the bottom of the cylinder can be read off the scale at different time intervals. If V per cent of niger has settled out within a time limit of t hours, then the equation, $(a - V)t = b$, will give the relation between these factors, a and b being constants depending only on the concentration of the soap and of the salt used in the graining process. Thus (a) denotes the quantity of niger, expressed in percentage-volume, which would be separated finally after the elapse of considerable time. A new factor is introduced and called the coefficient of separation of the niger. This coefficient is expressed by the fraction, $(V \times 100)/a$. It was found that the coefficient of separation of the niger is controlled principally by the duration of separation and that it varies proportionally between maximum and minimum limits under different conditions of graining (that is, concentration of soap and of salt) when the time of separation of the curd soap from the niger remain constant.

Investigations were carried out to determine the behavior of the coefficient of separation of niger in soaps, whose conditions of separation were about the same, but in which the soap concentration varied considerably. It was found that the more dilute soaps had the higher coefficients of separation. The effect of the concentration of the salt on the coefficient of separation was investigated in another series of experiments with the concentration of soap remaining about constant. The highest and therefore the most favorable values for the coefficient of separation were found with moderate concentration of salt. This is explained by the fact that, while large quantities of strongly viscous and hence difficultly-movable curd soap are present in the kettle when the salt concentration of the kettle soap is high, the separation of curd soap from niger does not take place quickly with low concentration of electrolyte, since the difference between the specific gravity of the curd soap and of the niger is not sufficiently marked in this case.

The relation between the viscosity of curd soap and the temperature was determined by means of the ball viscometer. It was found that the viscosity below 70 degrees C. suddenly rises very sharply as the temperature decreases. Hence it is absolutely necessary that the temperature should be kept above 80 degrees C., so that the curd and niger can be separated in the kettle. From the practical standpoint, it is of greatest importance to be able to tell whether the condition of the kettle soap is most favorable for separation of curd and niger, or whether the contents of the kettle must be further processed before the soap is grained. The soap maker determines the condition of the soap by taking a sample and testing in the time-honored manner. It is, however, proposed that the soap should be tested in a centrifuge to determine the ease with which the curd separates from

the niger. In making these tests various samples of soap of different concentration containing various proportions of electrolyte were centrifuged for ten minutes. Inasmuch as the soap sample tends to cool off during the centrifuging period and as the temperature of the soap has an important influence on the ease of separation of curd and niger, suitable provision must be made to keep the soap at the right temperature during centrifuging. A large number of tests were made on soaps in various states of equilibrium. It was found that ten minutes was a long enough period for centrifuging to obtain a good idea of the ease of separation of curd and niger. The author tested the method further and claims that it fills all the requirements while being considerably less empirical than the one usually employed by the soap boiler. Jasota Kawakami. *Journal of the Society of Chemical Industry of Japan*, April, 1933.

Latherless Shaving Creams

Triethanolamine is highly useful in making non-lathering shaving creams because of its strong emulsifying action. Furthermore, it can be used in making acidic shaving creams, which are claimed to have a tonic astringent and healing action on the face. Alkaline-reacting creams are not desirable as they irritate the skin. Thus a liquid shaving cream of the non-lathering type, which is acidic, contains 200 parts of stearic acid, 10 parts of triethanolamine and 800 parts of water. A thicker cream of the same type is made from 200 parts of stearic acid, 10 parts of triethanolamine, 10 parts of anhydrous sodium carbonate and 800 parts of water. It is also advisable to incorporate a little witch hazel extract or menthol with these shaving creams. Beeswax is also added sometimes, as it is claimed that this ingredient heals and regenerates the cells. These creams do not hydrolyze when used as they are practically insoluble in water, a property which distinguishes them from ordinary soap-containing creams which hydrolyze as soon as dissolved to give an alkaline reaction. Anonymous. *The Manufacturing Chemist*, 1933, pages 230 to 231.

Fats and oils are stabilized by incorporating with them a small proportion of a natural resin, such as guaiac gum, or the condensation product of a methyl ether of a polyhydroxy alcohol and an aldehyde, insoluble in water. Swift & Co., Chicago, Ill. French Patent No. 741,417, filed August 20, 1932.

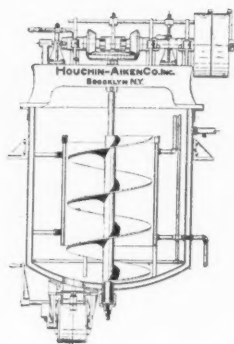
In order to inhibit oxidation and rancidity of fats and oils, they are treated with a small quantity of an unsaturated "olybasic" aliphatic acid, such as maleic acid, aconitic acid, fumaric acid, citraconic acid or itaconic acid, or derivatives, such as maleic anhydride or ethyl maleate or sodium maleate. It is claimed that even the addition of only 0.01 per cent of the substance is effective in some instances. George R. Greenbank (dedicated to the Public for free use). U. S. Patent No. 1,898,363.

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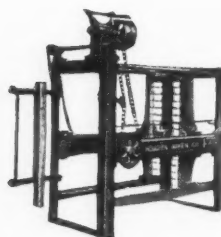
Horizontal Crutcher



Empire State
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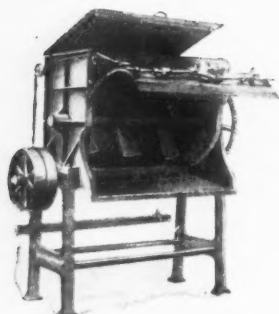
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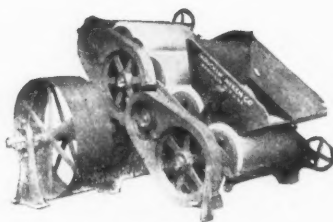
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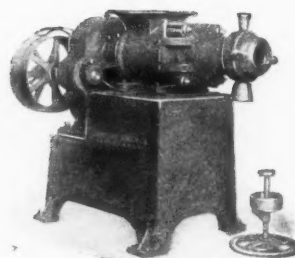
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HAWTHORNE, NEW JERSEY

Handling Fatty Acids

While lead is itself very resistant to the action of the higher fatty acids, yet in the presence of iron some unusual cases of rapid corrosion and leakage are at times met with. In many instances, also, however carefully the necessary repairs are carried out, the trouble is soon repeated; it remains, in fact, a chronic and rapidly recurrent evil when once corrosion has started. Lead, of course, expands much more than iron with the same increase of temperature, but does not undergo a corresponding contraction on cooling. The consequence is the appearance, often noted in lead-lined tanks, of a wavy or puckered surface of the lead. This is undoubtedly a predisposing condition for subsequent attack by the acids under the peculiar circumstances prevailing at the lead-iron interface. When once the fatty acid gets into the small interspaces between the lead lining and the iron, corrosion rapidly occurs.

In tests recently carried out in Germany (and reported in *Seifon-Sieder Zeitung*, 1933, pages 131-3, 165-7, and 184-6), some large tanks, lead-lined to a thickness of 5 m.m. which had been repeatedly repaired for leaks due to corrosion, were thoroughly examined. It was found that the holes in the lead had evidently started on the inner side of the lining, and that the spaces between lining and iron were filled with a more or less unchanged fatty acid containing both iron and lead in solution, and having the form and appearance of a viscous brownish grease. The fact that, in carrying out leak repair, it is not possible thoroughly to remove all this grease, is doubtless the reason why leaks very quickly form again in the same tank, and practically in the same place as at first.

Four series of tests were carried out with lead and iron plates, double bent into the form of a three-sided prism, or in some cases nearly semi-circular, as follows: (1) Lead only in oleic acid (Twitchell split 90 per cent soya oil fatty acid); (2) lead in oleic acid and water; (3) lead, iron, and oleic acid; (4) lead, iron, oleic acid, water. The lead plates were weighed at regular intervals till the end of a nine-months' period. The main result was that corrosion of the lead plates only was comparatively slight as against that of the lead plates immersed with their sheet-iron covers.

Lead plates 75 × 45 m.m., weighing originally from 54.3 g. to 65 g., lost the following amounts in nine months' immersion in fatty acid:

	Original Weight	Loss in Nine Months
Test 1, Pb only in fatty acid.....	54.31 g.	2.81 g.
" 2, Pb and water in fatty acid....	59.13 g.	2.79 g.
" 3, Pb and Fe in fatty acid.....	67.52 g.	15.41 g.
" 4, Pb, Fe, fatty acid, and H ₂ O...	65.00 g.	15.91 g.

The corrosion is not uniform, and is much more marked on the upper edges of the plates than on the lower, where it is indeed almost negligible. The general practical conclusion seems to be that it is better to use lead-lined wooden tanks rather than iron wherever this is possible.

Soap Base for Fine Soaps

Two stages of manufacture consist first in making a suitable soap base, stable in storage, and second in processing this soap, that is milling the soap, adding other ingredients and pressing into shape. Pure fatty materials must be used in making the soap base, and complete saponification, which improves keeping qualities, must be assured. Thorough emulsification of the soap in process is necessary and the salt used should be carefully controlled in quantity. Certain soaps made from fats, tallow, lard, and palm oil are peculiarly sensitive to the action of salt. Addition of dark colored cottonseed oil to tallow was found to cause considerable trouble. The tallow should be melted in the soap works wherever possible, so that adulteration may be detected. Mutton tallow cannot be used for making these soaps, because the products made therefrom develop a peculiar odor on storage. Addition of 20 per cent coconut oil to the stock is advantageous. The principal constituent of the stock is beef tallow or bleached palm oil.

According to Krings, writing in *Allgemeine Fett und Oel Zeitung*, 1933, pages 84ff., five mixtures are recommended as suitable for making these soaps. These mixtures are first, 80 per cent fresh beef tallow and 20 per cent good quality coconut oil; second, 65 per cent of beef tallow, 15 per cent of lard and 20 per cent of coconut oil; third, 70 per cent bleached palm oil, 15 per cent sulfur olive oil and 15 per cent coconut oil; fourth, 65 to 70 per cent of beef tallow, 10 to 15 per cent of castor oil and 20 per cent of coconut oil; fifth, 60 per cent of bleached palm oil, 20 per cent of tallow and 20 per cent of coconut oil.

Skin fat can be used in making second quality soaps, and also palm kernel oil in the place of coconut oil. Various methods of saponification may be used, such as saponifying the tallow, lard and palm oil first, salting-out once or twice and then adding the coconut oil and saponifying again, followed by salting-out. In another method a portion of the fully saponified soap mixture is used to start a new batch in order to facilitate preliminary saponification. A third method is used in which the "salting-out" is done by means of hot dilute sodium hydroxide solution and salt is not used. The grained soap is kept hot for at least 36 hours, and, although the finished product is fairly alkaline in reaction, during the subsequent drying on a band drier or drying oven, the alkaline reaction disappears sufficiently to give a serviceable soap. The fourth method consists

— o —

Sterilized fats, including coconut oil, beeswax, etc., free from micro-organisms may develop ketonic rancidity on storage. The process is accelerated by exposure to light and heat. Fatty acids from C₃ upwards, glycerol, soaps (potassium laurate) give the Tauefel ketone reaction after irradiation, volatile acidic products being formed in the case in the higher fatty acids and glycerol. H. Schmalfuss, H. Werner and A. Gehrke. *Fettchemische Umschau*, 1933, volume 40, pages 102 to 104.

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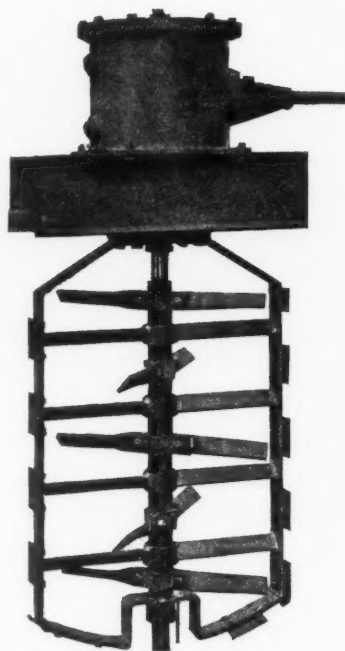
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ON PRODUCTS AND PROCESSES

Carbon tetrachloride is obtained in jellified form by mixing in approximately equal parts with red oil and saponifying with sodium hydroxide, density 1.26. After shaking a stiff jelly is suddenly formed. More carbon tetrachloride can then be incorporated without affecting the stiffness of the product. By using sodium silicate in the place of sodium hydroxide, a fine grit of silica is dispersed throughout the detergent. Sterling Products Co. United States Patent No. 1,870,560, filed August 9, 1932.

Transparent soap of high fatty acid content (65 per cent) is obtained by adding sufficient rosin to the saponification mixture of fatty matter and alkali of high degree of purity. The rosin is added to retard crystallization of the mass. No other fillers are used. The soap is cooled rapidly in thin layers and dried at room temperature, avoiding crystallization by super-saturation. The soap is milled at slow speed so as not to incorporate air. It is then compressed to rope (the press-head being cooled) and made into bars by the usual methods. Henkel & Co. G.m.b.H. British Patent No. 392,400, filed August 30, 1932.

Pale fatty acids are recovered from cottonseed black grease and other acid oils by converting the volatile constituents of the grease, causing the discoloration of the distilled fatty acids therefrom, into less volatile and more insoluble compounds. This is done by oxidation and the products obtained are thereafter separated. For example, air is blown through the material (in the presence of a catalyst if desired) or through the vapors from the still, and the fatty acids are fractionally condensed. The black grease may be pre-treated with a solvent to separate the bulk of the fatty acids. N. V. Maatschapij tot Exploit. der Vereenigde Oliefabr. "Zwijldrecht". British Patent No. 391,825, filed October 28, 1931.

Unsaponifiable constituents are obtained from oils, fats and oxidation products of hydrocarbons by first converting the saponifiable fractions into a mixture of magnesia soaps, lime soaps and potash soaps. The respective proportions of these soaps are such that the melting point of the saponified product is less than 150 degrees C. The mixture is then distilled and the unsaponifiable constituents are recovered. I. G. Farbenindustrie A.G., Frankfurt-am-Main, Germany. German Patent No. 559,732, filed April 19, 1931.

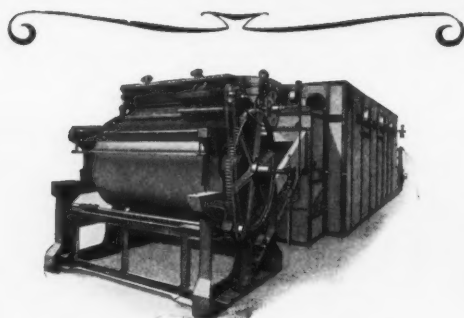
Iodine number (according to Wijs) of polymerized linseed oil or of its methylated ester is not characteristic of the product, because a maximum absorption of iodine is not attained even after three hours. The final coefficient of the oil is approximately the same as that of the original oil. Bromine and sodium bromide methods give figures a little lower, but they are more accurate, because the absorption of bromine increases with time, and depends on the concentration of the bromine in the case of the oil, but not of its ester. It is suggested that depolymerization accompanies the addition of the halogen. A Stegar and J. van Loon. *Revueil Travaux Chimiques*, volume 51, 1932, page 648.

The addition of 0.05 to one per cent of an amino-sulfonic or carboxylic acid compound—for example, sulfanilic acid, naphthionic acid or aminobenzoic acid—or a sodium salt of the acid, to soaps prevents rancidity. R. E. Devine. United States Patent No. 1,869,469, filed December 4, 1926.

Polishes, which comprise a proportion of wax beyond its solubility at room temperature—for example, carnauba wax more than 15 per cent—are manufactured from wax which has been finely comminuted by mechanical means, whereby fluidity is maintained. Standard Oil Co. United States Patent No. 1,871,187.

Fatty oils are subjected to splitting at temperatures in the neighborhood of 200 degrees C. Dry hydrochloric acid gas is used for this purpose and the reaction is carried out in the presence of catalysts, which are able to split off hydrogen or hydrochloric acid. These catalysts may be oxides of heavy metals, or their chlorides. In the latter case chlorinated fatty acids and alkyl chlorides are obtained from alcohols. German Patent No. 567,014. Deutsche Hydrierwerke A. G.

Mixture of fatty acids is treated in aqueous medium with a quantity of two saponifying agents sufficient just to give complete saponification. One of these saponifying agents yields a soap insoluble in water and the other a soap soluble in water. The treatment with the saponifying agents may be simultaneous or successive. If these saponifying agents are used in proportions corresponding to the solid and liquid fatty acids present in the mixture, then the solid fatty acids form insoluble soaps and the liquid fatty acids soluble soaps, and the soluble and insoluble soaps may be separated by filtration, centrifuging and the like. German Patent No. 575,093, Bamag-Merguin A. G.



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This new Proctor Dryer produces Soap Chips of transparent thinness—exactly the kind now in popular demand for package laundry soap—also the chip that can be produced most efficiently in making cake toilet soap.

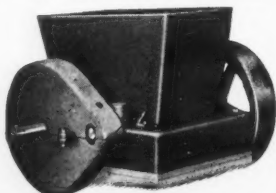
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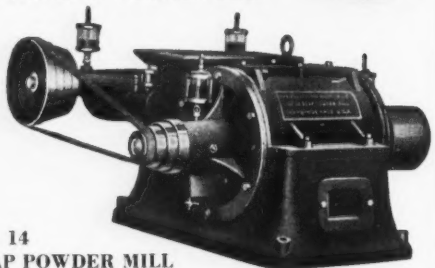
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Soap Plant Costs

(From Page 23)

and ranges from \$1.40 to \$1.60 per hundred pounds of oil. The fact that this cost amounts to only 15 to 20 per cent of the factory cost of the finished product and that it varies slightly is claimed to make it sufficiently accurate for figuring costs.

Hence, in the case of the brand of soap, whose cost calculation has been brought to the point where all raw materials have been figured, it becomes necessary to add the manufacturing or overhead cost. The latter figure is chosen on the basis of expected production during the quarter at the beginning of each quarter-year. Thus, in this instance it was estimated at \$1.50 per hundred pounds of oil used. Inasmuch as 460 pounds of oil were consumed in making a frame of soap, the total cost charged to the frame is $460 \times \$1.50$ or \$6.90. This, added to \$19.36 net cost for raw materials, gives \$26.26 as the total cost less credit for glycerin. The former figure, divided by 1045 pounds of soap per frame, gives \$2.52 as the total factory cost per hundred pounds of soap.

From this point the cost unit is changed from per hundred pounds of soap to per case. For example, if the soap is made into 8.5 ounce cakes, 100 cakes to the case, 8.5×100 is 850 ounces or $53\frac{1}{8}$ pounds. However, the figure used in the calculation of the per-case cost is 55 pounds. The reason for this is that the weight per cake of soap varies and the procedure is to weight three cakes of soap from the top, center, and bottom of the first, middle and last frames of a cutting batch and use the average weight figure in determining the over-weight charges. Hence, 55 pounds of soap at \$2.52 per hundred pounds amounts to \$1.39. One hundred wrappers at 69 cents per thousand cost \$0.07 and one case at 6 cents cost \$0.06, making a total factory cost per case of \$1.52.

As far as the scraps which are trimmed off in cutting the bars of soap into cakes, credit is given to the frame for the weight of the scraps which can be melted and recast directly into frames. On the other hand there are cases where the scraps must be thrown back into the kettle. Then the weight of scraps per frame is deducted from the net weight of soap in the frame and credit is given for whatever can be salvaged, which is usually only the oil content of the scrap.

At the time of inventory at this plant, which is once every quarter, the quantity of oil actually used in making the soap can be checked against weighing records of oil added to the kettles. If there is some soap in the course of manufacture at the time of inventory, which happens practically always unless a definite effort is made to take inventory with all soap in finished state, then it is necessary to determine the weight of the unfinished soap and to calculate back from this weight the consumption of oil corresponding thereto. This consumption of oil must be deducted from the inventory consumption to obtain the actual quantity of oil used for making the poundage of finished soap in case form

reported by the cutting table operator. Hence, it frequently happens that it becomes necessary to determine the weight of soap in the kettles, in the frames and in other stages of manufacture. In some cases, as for example, the frames, or the bars of soap from the plodders, this is a simple matter of weighing and involves no great difficulty. However, in the case of kettle soap, conditions are quite different and errors can be easily made.

It is, of course, a rather simple matter to make the oil consumption check-up when all the soap in the frames is being used to make a single brand of soap. It is quite a different matter when the soap in the frame is being cut up into various weights and shapes to produce various brands. The oil consumption charge per case for each brand of soap will be different, since not only may the shape and size of the cakes vary, but a different composition of oils and fats may be used in making the various grades, and hence the composition of the soap in the frames will likewise vary. The ordinary oil balance, and this refers also to the tallow, caustic soda and other raw materials balances will not show where the trouble lies, if the inventory figures do not check up with the weighing figures. In this case it is probably simplest to accept the weighing records of the cutting table as accurate and use them as the basic figures in calculating the cost and in adjusting this to absorb the inventory losses or gains.

However, if all the soap made and measured in the frames is of the same composition and is processed into cakes of different shape and weight, it is a simple mathematic calculation to determine the proportion of loss or gain of oil to be charged or credited against each type of soap. For example it may be assumed that 20,000 pounds of soap cakes A are made, 30,000 pounds of soap cakes B and 100,000 pounds of soap cakes C, making a total of 150,000 pounds of soap within the inventory period. It may also be assumed that the weighing records of oil total 110,000 pounds net while the inventory records show a total consumption of oil of 115,000 pounds over the same period, indicating a loss of 5,000 pounds of oil. The problem is how to allocate this loss and charge it to the three soaps made. The calculation is simple. The proportion of each soap made on the total production is figured, namely soap A $20,000/150,000$ or $2/15$ th, soap B $30,000/150,000$ or $1/5$ th, and soap C $100,000/150,000$ or $2/3$ rds. Then $2/15$ ths of 5,000 is 666 pounds of oil to be charged against soap A. $1/5$ th of 5,000 is 1,000 pounds to be charged against soap B and $2/3$ rds of 5,000 is 3,334 pounds to be charged against soap C. Similar calculations are made for the allocation of losses of tallow, grease, sodium hydroxide, potassium hydroxide and other raw materials.

The calculation of the costs of making a toilet soap in this soap works is somewhat different than for laundry soap. The milled toilet soap is constantly checked and a very accurate average oil content in the finished cake of

(Turn to Page 99)

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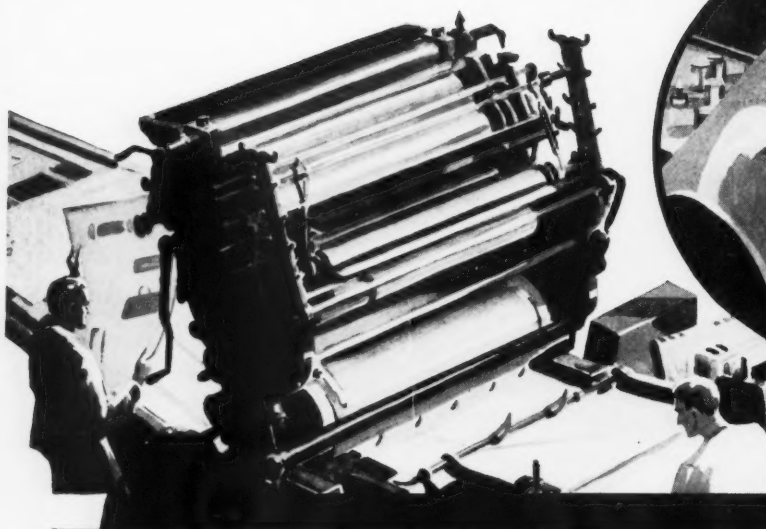
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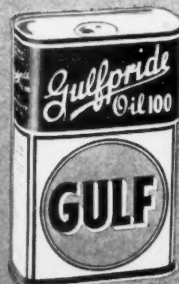


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An efficient liquid household insecticide of the pyrethrum type, pleasantly scented. Surpasses in effectiveness the standard of the National Association of Insecticide and Disinfectant Manufacturers. Each lot carefully controlled by the Peet - Grady method. Supplied in bulk for distributors to resell under their own trade-names. Also suppliers of pyrethrum concentrate.



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HIPINE, made according to the formula of the Hygienic Laboratory has a phenol coefficient of four to five.

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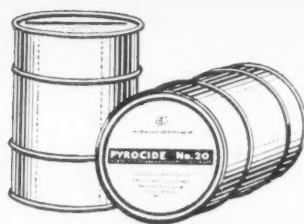
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Pyrocide 20 Sales HAVE INCREASED Every Year Since 1929

Before you make your 1934 commitment for pyrethrum, we suggest that you make a personal investigation of the facts outlined in this advertisement. Find out for yourself why Pyrocide 20 sales continue to make substantial gains while the total volume of household insecticides used, has decreased.

ONE reason for the steady growth of Pyrocide 20 sales since its introduction as the *first* standardized extract of pyrethrum flowers, is obvious. Pyrocide 20 has made it possible for users of pyrethrum to manufacture insecticides with *uniform* high killing power, at low cost.

Quite naturally, some users of pyrethrum were skeptical when standardization was announced, as the result of research by C. B. Gnadinger and C. S. Corl of the McLaughlin Gormley King laboratories. It was a revolutionary development, and it was difficult to grasp the full

significance of standardization and immediately realize its value.

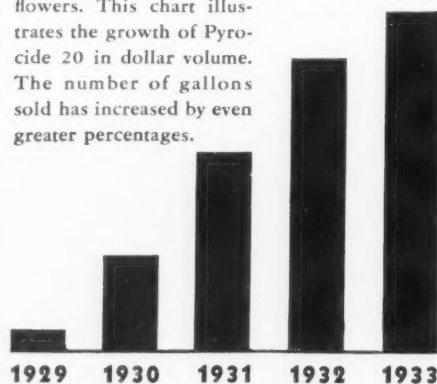
VALUE NOW RECOGNIZED

Today, the value of accurate standardization is accepted, and the wisdom of using Pyrocide 20 as an insecticide base is amply attested by the steady growth in sales, both in this country and abroad. Standardization by physiological test is proved not sufficiently accurate in itself.

Pyrocide 20 received its first commercial tests in 1929. During that season a few pyrethrum users tried the new product. It

Growth of Pyrocide 20 Sales

This chart shows how Pyrocide 20 sales have grown steadily since 1929, when the McLaughlin Gormley King Company first introduced a standardized concentrated extract of pyrethrum flowers. This chart illustrates the growth of Pyrocide 20 in dollar volume. The number of gallons sold has increased by even greater percentages.



successfully met the needs of these users. Many who tried only experimental quantities during the first year made substantial commitments in the fall of 1929 for the following season. These commitments were so heavy that we were forced to build a new plant, and design new equipment.

PYROCIDE BECOMES A LEADER

In the fall of 1930, we were literally swamped with orders for future delivery. It became necessary to build another new manufacturing unit doubling our original capacity. By 1931, Pyrocide 20 had become such an important factor as an insecticide base that during that year approximately one-third of all pyrethrum flowers imported into the United States were used in manufacturing Pyrocide 20. In 1932, Pyrocide 20 sales increased approximately one-third over 1931, and this year (1933) they will show another substantial increase over 1932.

The consumers of Pyrocide 20 must have been

satisfied or they would not continue to buy.

PYROCIDE STORY IS SIMPLE

Regardless of the variation in active principle content of pyrethrum flowers each gallon of Pyrocide 20 contains a certain definite quantity of active principle. That quantity is 2.6% pyrethrins, or *all* the active principle from 20 pounds of flowers having a pyrethrin content of .90%.

You can therefore predetermine the quality of your spray, and maintain that quality at all times.

Pyrocide 20 is specially treated in Frigidaire cooled tanks and filtered under pressure for clarifying.

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If you want to be *sure* of the quality of your insecticide in 1934, contract for Pyrocide 20 *now*.



An Invitation to **PYRETHRUM BUYERS**

It is our policy to control each step in the production of Pyrocide 20. Therefore, every process is conducted in one plant. We invite you to inspect our equipment, facilities and methods. These include assaying the flowers used in each batch, reduction to oleo-resin of pyrethrum, extraction of oleo-resin with various solvents and clarifying the finished concentrates.

We have a complete plant to show you, and will be proud to have you inspect it. If you cannot make a personal visit, we will be glad to send you our new booklet describing our process of manufacture. Write for this booklet.

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Deodorized Base for Fly Sprays

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DEO-BASE therefore offers you new sales opportunities and increased profits.

DEO-BASE is especially well adapted for use with *odorless* Pyrethrum Extract now obtainable from leading manufacturers.

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NOTE: Because Deo-Base is free from Kerosene odor, the use of perfume is entirely optional. However, if a definite perfume is desired only an exceedingly small quantity of perfuming material is required (1 to 2 ozs. per 100 gals.) to bring out the full and pure fragrance of the odor at a cost entirely negligible. (1/4c to 1/2c per gallon for a \$4.00 per pound odor.)

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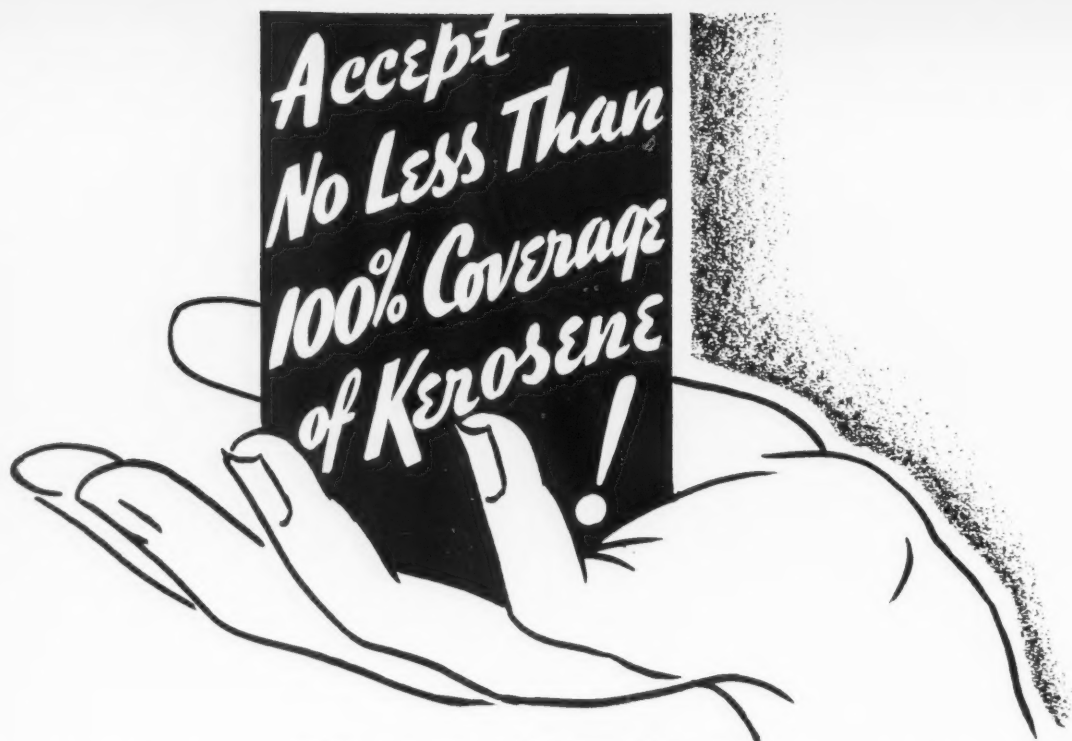
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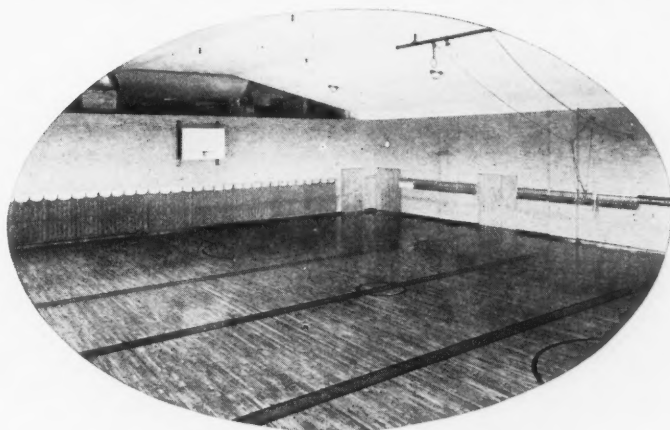
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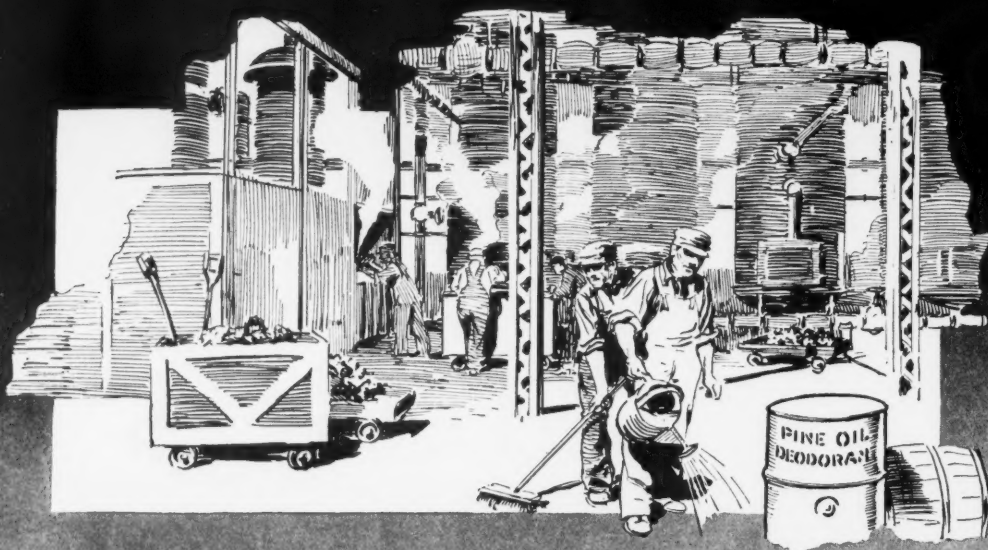
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INSECTICIDE AND DISINFECTANT SECTION



A Department of SOAP

SOAP is official publication of *The National Assn. of Insecticide and Disinfectant Manufacturers.*
HARRY W. COLE, Secretary, Holbrook, Mass.

AFTER submitting its code to some 1,500 various and sundry firms in the United States manufacturing insecticides, disinfectants, and allied sanitary products, the Code Committee of the National Association of Insecticide and Disinfectant Manufacturers engaged in a preliminary conference with the N.R.A. office in Washington. That the differences between the ideas of the industry and those of Washington were quite numerous, was to be expected. Quite a few changes had been made in the original document to bring it into line with what the Administration demands. A number of sections of the code have been rewritten to this end. In its amended form, it is again being submitted by the Committee. After going through the Administration office, a public hearing will be arranged. Judging from the number of codes already on line, a month or even two will pass before such a hearing can possibly be arranged. That the codes of the larger basic industries should be given a preference for consideration by the N.R.A. is only to be expected.

THE National Association of Exterminators and Fumigators has been formed as a countrywide trade organization for this industry. Already local chapters have been organized in Baltimore, Philadelphia, Boston, Chicago, and other cities. The local society in New York, from which this national asso-

ciation sprung, is also taking active part in the formation. Behind the movement for a national organization are the officers of the Society of Exterminators and Fumigators of New York. They have no ax to grind, no jobs to make for themselves. They sense the need now of a national group and are well qualified to undertake its formation. We urge that exterminators and fumigators in other cities form local associations now and affiliate with the National Association of Exterminators and Fumigators. We also urge those in the industry to join their local groups where they have been formed. The association is solely for the benefit of the industry as a whole, and without honor, glory or profit to any individual.

TO Washington has gone a strong protest from an insecticide manufacturer against the price at which certain purchases of insecticides by U. S. Government departments have been made. The manufacturer in question states that these prices are below actual cost of materials, exclusive of overhead. He raises the question—"If a manufacturer cannot make a profit, even in Government business, where is he going to get the money to pay more and higher wages?" The point is well taken. If on the prices of most Government purchases industry depended to pay wages, such wages would be extremely meagre.

National Assn. of Insecticide and Disinfectant Manufacturers

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Active—Open to manufacturers and wholesale distributors of disinfectants, germicides, deodorants, insecticides, liquid soaps, polishes, and allied products. Dues—\$75.00 per year.

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For further details, communicate with

**NATIONAL ASSOCIATION OF
INSECTICIDE & DISINFECTANT
MANUFACTURERS**

Harry W. Cole, Secretary

HOLBROOK

MASS.

Notes of the Trade

General Laboratories, Inc., Madison, Wis., moved their main offices early in September to Philadelphia. They are located in the Widener Building.

F. W. Foreman, formerly secretary and treasurer of Rex Research, Inc., Toledo, manufacturers of Fly-Tox, became associated with the agricultural chemical division of the Graselli Chemical Co. on Sept. 1 with headquarters in Cleveland. Graselli purchased the agricultural insecticide business of the Rex company several months ago.

H. W. Baldwin, president of the Baldwin Laboratories, Saegertown, Penna., recently addressed an open letter to Gen. Hugh S. Johnson, National Recovery Administrator, protesting strongly against the prices at which certain Government insecticide business was let, stating that they were below cost of production. He referred particularly a lot of 958 cans of bed-bug liquid, item 51-1-163, for the Warehouse for Indian Supplies, Department of the Interior.

Ralston Purina Co. is using demonstrators in advertising its newly introduced fly spray, a miniature death-chamber being set up in the retail store and prospective customers shown how the spray kills insects. The demonstrator also has an opportunity to show the odor of the spray and by turning the sprayer on himself can indicate that the spray presents no danger of staining clothing or other materials.

The Brooklyn Broadcasting Corp., operating radio station WBBC, Brooklyn, has inaugurated a series of broadcasts under the title, "The Household Insect as a Menace." Talks are given twice weekly, Tuesday morning at 9:00 A. M. and Thursday at 11:45 A. M. by Miss Marian Robinson.

Raising the standard of insecticide quality, of advertising and merchandising is the avowed primary purpose of the American Insecticide Institute, recently incorporated in Maryland, but which has been in existence for over a year. The A. I. I. in no way competes with the National Association of Insecticide & Disinfectant Manufacturers, but is a companion group interred chiefly in quality. Dr. Robert C. White of Philadelphia is president.

C. H. W. Hasselriis, president of the Ratin Laboratories, Inc., New York, recently made a brief address over the radio from Station WOR, New York, on aspects of poetry. He followed by reading a number of his poems.

Code of Insecticide and Disinfectant Industries Being Revised

THE code of the insecticide and disinfectant industries, which was drawn by a code committee last month and sent out to some 1,500 manufacturers after consideration by the Board of Governors of the National Association of Insecticide and Disinfectant Manufacturers, was the subject of a conference with the National Recovery Administration and the code committee, headed by Dr. Robert C. White and Peter Dougan, president of the Association, early this month. The preliminary conference was for the purpose of reaching some agreement on the code prior to filing it officially in Washington. A number of changes which will be required were pointed out by the N.R.A. officials and the code is now being revised by the code committee along these lines. When revision is completed, official submission of the code to the N.R.A. will be made. Inasmuch as practically every manufacturer in the insecticide, disinfectant, and allied sanitary products fields received a copy of the original code by mail from the Association, its publication here in detail is considered unnecessary. Any firms which have not seen a copy of the code can secure one by communicating direct with the office of Secretary Harry W. Cole, Holbrook, Mass. Judging from the rate of consideration of other codes on file in Washington, it will probably be two months or longer before hearings and final acceptance of the insecticide and disinfectant code will take place in Washington.

The code prior to its submission to the industry at large, was the chief subject of discussion at a special meeting of the Board of Governors of the National Association of Insecticide and Disinfectant Manufacturers, held August 22 at the Hotel New York, New York. Among those who attended that meeting were Peter Dougan of Merck & Co., Rahway, N. J., president; C. P. McCormick of McCormick & Co., Baltimore, first vice-president; S. H. Bell of the Koppers Products Co., Pittsburgh, second vice-president; Harry W. Cole of Baird & McGuire, Holbrook, Mass., secretary; John Powell of John Powell & Co., New York, treasurer; Dr. George Reddish of Lambert Pharmacal Co., St. Louis; W. J. Zick of Stanco, Inc., New York; H. W. Hamilton of the White Tar Co., Kearny, N. J.; S. S. Selig of the Selig Company, Atlanta; C. C. Baird of Baird & McGuire, Holbrook, Mass.; J. L. Clark of Dr. Hess & Clark, Inc., Ashland, Ohio. Dr. Robert C. White, member of the Board and chairman of the code committee was prevented from attending by illness.

Pennsylvania Salt Co., Philadelphia, have recently done extensive research work testing the efficiency of high test lyes as disinfectants. It is pointed out that high test lyes are more efficient than those containing a

higher percentage of inert ingredients, as inert matter seems to retard germicidal efficiency disproportionately to other elements in lyes.

American Disinfecting Co., Sedalia, Mo., recently put into operation a test dry cleaning plant, enabling its chemist to test in actual operation the materials they produce for the dry cleaning trade.

Exports of liquid household insecticides from United States during July, 1933, totaled 283,915 lbs., worth \$96,659.

Exports of household disinfectants, germicides, etc., from United States during July, 1933, totaled 84,936 lbs., worth \$8,856.

Sanitary Supply Assn. Meets

National Sanitary Supply Association is holding its annual meeting in Chicago at the Morrison Hotel on September 18, 19 and 20. The meeting was originally scheduled for June but was postponed so that consideration of a code for the janitor supply industry could be taken up at the meeting. Preliminary and revised drafts of the code have been sent to the membership, and are being taken up for final approval at the meeting. Exhibits of merchandise are being held in connection with the meeting. Officers of the Association include J. H. Zucker of the State Chemical Co., Cleveland, president; L. C. VanNest of the VanNest Janitor Supply Co., Toledo, vice-president; S. J. Bockstanz of Bockstanz Bros. Co., Detroit, treasurer; E. C. Kratsch of Janitation, secretary.

A. O. Smith Corp., Milwaukee, manufacturers of steel products, have announced a new line of glass lined storage and ageing tanks. During the past four years, the company has made a considerable study of the subject of glass coating, this new type of tank being one of several items which has resulted from their research work.

MEDICAL ENTOMOLOGY, by Robert Matheson, Professor of Entomology, Cornell University. 500 pages. 336 illustrations. 6½ x 9½. \$5.00. The author has given a complete and well ordered summary of today's knowledge of his subject. Insect anatomy is taken up in detail and details are amply illustrated. Modern control measures are discussed at length. Complete tables of important insects involved in disease transmission are given.

Relative Toxicity of Pyrethrins I and II

By E. D. WILSON, Ph.D.

IN *Soap*, May, 1933, appeared an article by Wilcoxon and Hartzell entitled "The Active Principles of Pyrethrum and Their Action on Insects" in which it is pointed out that Pyrethrin I is considerably more toxic than Pyrethrin II, thus confirming the statements of Tattersfield on this subject. In their paper, Wilcoxon and Hartzell give a table of experimental results which is reproduced here.

TABLE I
COMPARATIVE TOXICITY OF APHIS RUMICIS OF PYRETHRUM EXTRACTS
VARYING IN THE RATIO OF PYRETHRIN I TO II

Per Cent Pyrethrin I	Per Cent Pyre- thrin II	Per Cent Total Pyrethrins		Per Cent Mortality	
23.1	28.5	51.6		55.5	
9.5	42.1	51.6		25.6	
21.6	24.4	46.0	62.5	(58.0)	53.0
8.3	41.6	49.9	32.0	(29.0)	26.0
43.6	57.1	100.7	22.8	(23.1)	23.5
14.7	76.5	91.2	9.5	(9.9)	10.3
50.6	44.1	95.0	51.1	(49.8)	49.4
2.8	92.6	95.4	17.0	(10.0)	9.1

The authors state that the experiments were run in pairs, two samples of approximately the same total Pyrethrin content but of widely different Pyrethrin I and Pyrethrin II content, being run at the same time. Using these data in pairs, it is possible to calculate the ratio of the toxicity of Pyrethrin II to Pyrethrin I for each of the four sets of tests. The calculations follow:

$$\begin{aligned} \text{Let } t_1 &= \text{toxicity of Pyrethrin I per unit concentration} \\ t_2 &= \text{toxicity of Pyrethrin II per unit concentration} \\ r &= \frac{t_2}{t_1} \end{aligned} \quad (1)$$

Then from the first pair of experiments we may set up the following equations:

$$23.1 t_1 + 28.5 t_2 = 55.5 \quad (2)$$

$$\text{and } 9.5 t_1 + 42.1 t_2 = 25.6 \quad (3)$$

Substituting (1) in (2) and (3) we have

$$23.1 t_1 + 28.5 r t_1 = 55.5 \quad (4)$$

$$\text{and } 9.5 t_1 + 42.1 r t_1 = 25.6 \quad (5)$$

Solving each of (4) and (5) for t_1 , and equating them we have

$$\frac{28.5 r + 23.1}{55.5} = \frac{42.1 r + 9.5}{25.6} \quad (6)$$

Solving for r we find $r = 0.041$

Treating the other pairs of experiments in the same way we obtain several values of r .

Experiment 1 ; $r = 0.041$

" 2 ; $= 0.086$

" 3 ; $= 0.077$

" 4 ; $= 0.088$

Average: $r = 0.073 \pm 0.016$

The figures of average kill given in the table in parentheses are the actual averages with the exception of the last, namely 10% kill. The wide variation of the duplicates, 9.1 and 17.0 lays this particular experiment open to suspicion. The value of 10 for the average was used because an examination of the figures of Pyrethrin I content clearly indicates that the figure of 9.1% kill is likely to be much more nearly correct than 17.0.

The results vary considerably as would be anticipated, but considering the biological factors involved, are remarkably consistent. The consistency is particularly striking when it is considered that the conditions under which the different sets of experiments were run must have varied widely. This is illustrated by comparing the first experiments of each of Set 3 and Set 4. The Pyrethrin I content in each case was similar (43.6 and 50.6); also the total Pyrethrins were in each case between 90% and 100%. Yet, in Exp. 3 the kill obtained was about 23% and in Exp. 4 about 50%. Even under such varying conditions of total kill, however, the relative kills of Pyrethrins I and II check. On the basis of these experimental results, it appears that Pyrethrin II has a toxicity of only about 7% of Pyrethrin I.

Studies on Pyrethrum Flowers

The presence of pyrethrolon and methyl-pyrethrolon in pyrethrum flowers is studied. A method is described for separating the two substances from pyrethrins I and II. The pyrethrins in petroleum ether are not readily oxidized by dilute solution of potassium permanganate, the loss averaging about four per cent. Pyrethrolon and pyrethrolon methyl ether, in petroleum ether, are instantly oxidized by a dilute solution of potassium permanganate and removed from the petroleum ether. Pyrethrins, which are changed by exposure to air, are appreciably oxidized in ether solution by a solution of potassium permanganate. Freshly harvested pyrethrum flowers, which are assayed by the potassium permanganate method, shows about the same loss of pyrethrins as solutions of pure pyrethrins of the same strength. Pyrethrum flowers ten months old show a somewhat greater loss by the potassium permanganate method, probably because of the oxidation of the changed pyrethrins. No evidence of any appreciable proportion of pyrethrolon or pyrethrolon methyl ether was found in flowers from America, Dalmatia or Japan. C. B. Gnadinger and C. S. Corl. *Journal of the American Chemical Society*, volume 55, 1933, pages 1218 to 1223.

Western Chemical Co. has moved its headquarters from Richmond, Calif., to 650 Mission St., San Francisco.

Organize National Exterminators' Assn

Lead Taken by Fumigating and Exterminating Groups in Chicago, Boston, Philadelphia, New York, Baltimore and Other Cities—National Code to Be Based on Consolidation of Local Codes—Over 100 Firms Already Members of National Association—Expect Over 500 Members

RAPID strides have been made in the organization of the National Association of Exterminators and Fumigators since its incorporation slightly over a month ago. Well-known firms in Chicago, Boston, New York, Baltimore, Washington, Philadelphia, Kansas City, and other cities have taken the lead in organizing the companies of their respective localities into local sections. The Fumigators' Association of Los Angeles has expressed a willingness to associate as a section of the national group. Further groups are planned for Memphis, New Orleans, Atlanta, Pittsburgh, Cincinnati, St. Louis, San Francisco, Detroit, and other cities, all as sections of the National body. William O. Buettner, president of the Society of Fumigators and Exterminators of New York, has been acting as temporary chairman of the organization committee, with Irving H. Josephson, secretary of the New York local group as acting secretary.

Some of the local groups have already drawn up preliminary codes to fit the conditions of their localities. It is understood that from these local codes, a national code to apply to the entire country will be drawn for submission to Washington. The membership of the national group is already in excess of a hundred firms and the committee expects that membership will run over 500 by the end of the year. Dues have been set at the exceptionally low figure of two dollars per firm.

To date, those directing the affairs of various local societies, affiliated with the national group, include: Greater Boston Society, B. W. Eldredge, president; Lewis A. Rich, vice-president; Lester M. West, secretary; Dr. Harry W. Houghton, treasurer. The Baltimore Association of Exterminators and Fumigators, F. D. Hubbell, president; C. Walter Porter, vice-president; Gilbert M. Stover, secretary and treasurer. Chicago Society in process of organization with Walter S. McCloud as acting chairman; Dr. Hugo Hartnack in charge of code formulation; C. Norman Dold in charge of membership and constitution. Philadelphia Society, A. E. Ritt, president, and Alfred Schmitthenner, secretary-treasurer. New York Society, William O. Buettner, president; Melvin Horowitz, vice-president; Irving H. Josephson, secretary;

Frank Rauch, treasurer. Fumigators' Association of Los Angeles, R. B. Loibl, president; R. A. Woodward, 1st vice-president; R. M. Wilson, 2nd vice-president; E. A. Wimer, secretary-treasurer. Names of the officers of the Kansas City, Washington, and Cleveland groups, which have already been organized, are not available yet. Temporary headquarters of the National Association of Exterminators and Fumigators are located at 840 Eighth Ave., New York.

In discussing the National Association with a representative of *Soap*, William O. Buettner, temporary chairman, stated that for some years there has been a desire among leading exterminators and fumigators in all sections of the country to form a national association. The need for such a national association, he holds, is quite obvious. The regulation of trade practices, the open discussion of vital trade matters, and raising the business to a higher standard, are now all possible in due course. The NRA really forced the issue and has made a strong national association almost imperative if the industry is to pull itself out of chaos and get anywhere, he stated. Because the New York Society was already organized and had been in operation for several years, the officers of that body took the initiative after they had received numerous inquiries about the local code and for other information regarding the NRA. They feel, Mr. Buettner said, that a large national body, taking in all exterminators and fumigators, and to be directed by officers and a board representing every section of the country, is the only real means of solving the problems of the industry in its relations with the NRA and in other matters of national moment.

Just as the New York Society was formed, Mr. Buettner indicated, when the City of New York adopted drastic restrictions in fumigating and exterminating practice and the requiring of licenses for operators and employees, a national group will be absolutely necessary as laws and regulations spread over the country, and also in case of a federal law regulating the industry. Over 700 exterminating and fumigating firms in the United States have been advised of the formation of the national association and urged to join. The membership list is growing with unusual rapidity and already contains companies from over twenty cities.

In regard to the code, Mr. Buettner stated that a national code for the exterminating and fumigating industry will be imperative and that the only means of securing a real representative code is through a national association, representing all sections of the country and not just one city or locality. "The exterminating and fumigating code comes under the jurisdiction of Deputy Administrator A. D. Whiteside, who has already very

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 and all FLIES etc.*

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graciously co-operated with us by having assigned as assistants Messrs. Ludlum, Shields, and Libert, and we have been in constant contact with them on code matters," Mr. Buettner said. "Through our national association, we can correlate all local codes in advance of hearings in Washington and receive far better consideration, provided we do not delay matters unduly," he said further. The dues have been placed at two dollars per year, the very lowest possible point because expenses will be kept at the absolute minimum. The chief expense is mailing and printing. There are no fees or salaries to anyone, and it is believed at this time that legal expenses in correlating and filing a national code will not be necessary. Mr. Buettner urges all exterminators in all parts of the country to join the national association immediately and lend their aid in formulating the national code. For any further details, he suggests communication with the temporary headquarters of the Association at 840 Eighth Ave., New York.

Clorox Chemical Company, Oakland, Calif., two days before announcing that its operating profit for the year ending June 30, 1933, was \$330,427, had a \$50,000 fire in its plant. According to Plant Manager W. C. R. Murray, the fire started from sparks in a heater in the chemical cell room, and destroyed several units of mixing machinery. Twelve firemen were injured in fighting the blaze. The company financial report showed net earnings of \$227,184. Operating profit for the twelvemonth preceding that of the report, had been \$353,158, slightly higher than during the period just completed.

The "Dri-Brite" floor wax exhibit at the Chicago Fair illustrates the advantages of the non-rubbing wax as a labor saver. Panels are exhibited showing a variety of different types of flooring waxed with "Dri-Brite." Visitors at the booth may receive samples of the product sent to their homes on request.

Dr. George Barsky has resigned as director of the Linden, N. J., laboratory of American Cyanamid Co., and has opened an office at 521 Fifth Ave., New York, where he will handle general chemical consulting work.

It was incorrectly reported in the August number of *Soap* that Edward O. Doeplitz is president of the newly formed Chemical Research Corp., Baltimore. R. H. Israelson is president of the concern and Mr. Doeplitz is treasurer. J. Buttner is secretary. Both Mr. Buttner and Mr. Doeplitz are associated with Kilsem Manufacturing Co.

Combustion Engineering Co., newly organized, has taken over the properties of International Combustion Engineering Corp. recently sold by order of the Federal Court. They will be operated under a single centralized management.

Caustic Poison Labels Inadequate

Failure of retail dealers to label properly such caustic poisons as lye, carbolic acid and oxalic acid has been cited by W. G. Campbell, chief of the U. S. Food and Drug Administration, after a survey in the District of Columbia. Many retailers buy such products in bulk and resell them without poison labels, it was discovered, fifty-eight of eighty-five samples obtained being incorrectly labeled or carrying no labels. Preliminary hearings are now being held in Washington to give the offenders an opportunity to show cause why their cases should not be referred to the Department of Justice for prosecution.

Ban Stink-Bomb Sale in N. Y.

Through an amendment to the health code of the City of New York, valerianates, valerian, and other obnoxious odoriferous products cannot be possessed or sold in the city except by a duly licensed physician, veterinarian, or pharmacist, or upon their written order. Stink-bombs commonly used in labor disputes, and often in theatres, movie-houses, etc., are ordinarily made from some valerianate, such as ammonium valerianate, although butyric acid, hydrogen sulfide, carbon bisulfide, and other products are sometimes used. The amendment became effective Sept. 1 and conforms with a New York State law recently passed.

To defeat the purposes of racketeers who offer "protection" against stink-bombs and who also offer "service" for removal of the odor, it also becomes unlawful for any person other than one holding a fumigant permit in New York City to engage in the business of neutralizing the odor, vapor, gases, etc., engendered from any stink bomb.

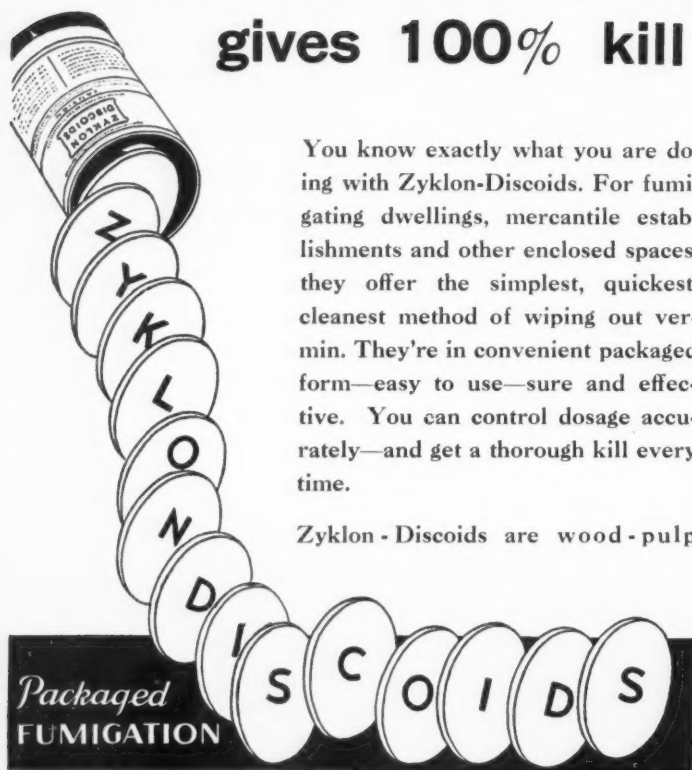
W. Benkert & Co., New York, importers and millers of pyrethrum, derris, and other botanical products, announce that Russell B. Stoddard has become associated with the company as representative in Eastern Pennsylvania, Delaware, Maryland, and the South, with headquarters in Baltimore. Mr. Stoddard was formerly associated with Van Ameringen-Haebler, Inc., and Ungerer & Co.

An insect exterminating apparatus has recently been developed in France consisting of a combination lamp emitting ultra-violet rays, a suction pump and an asphyxiating chamber. By varying the length of the rays, various insects are attracted into the fatal zone.

Exports of liquid household insecticides from United States during June, 1933, totaled 408,782 lbs., worth \$141,493. Powdered or paste products accounted for 30,349 lbs., worth \$8,771.

Master Chemical Co., Milwaukee, has recently re-located at 1950 West Fond du Lac Ave.

HANDY, CLEAN . . this new fumigant gives 100% kill in $\frac{1}{3}$ the time



You know exactly what you are doing with Zyklon-Discoids. For fumigating dwellings, mercantile establishments and other enclosed spaces, they offer the simplest, quickest, cleanest method of wiping out vermin. They're in convenient packaged form—easy to use—sure and effective. You can control dosage accurately—and get a thorough kill every time.

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discs impregnated with HCN—the fumigant which has proved its practical efficiency consistently for over forty years. Just scatter the Discoids on the floor. Immediately a gas is released that kills all forms of insect life. No mess and delay. No mixing of liquids. No burning. There's no danger of damaging wood, metal and fabric.

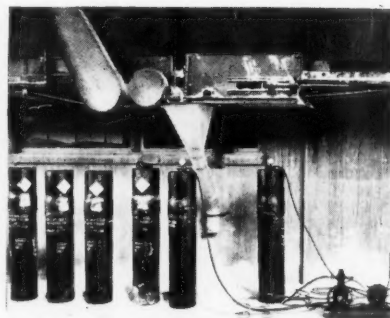
Write or send the coupon for a copy of our new Fumigation Manual.



Use Cyanogas A-Dust for killing rats in city dumps, under pavements and tight floors. Cyanogas is different. It is not necessary for rats to eat it or even touch it. A little Cyanogas pumped into a rat burrow liberates a gas in which no animal can live.



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DERMATOPHYTOSIS

*In Other Words, "Athlete's Foot"—
Preventing Its Spread by the Use of Disinfectants*

By J. L. BRENN
President, Huntington Laboratories

ATHLETIC directors and coaches in great numbers have been caused considerable anxiety by the appearance and spread among students of an infection of the skin popularly known as "athlete's foot." Fortunately, this form of ringworm does not constitute a severe menace to public health, and its control depends to some extent on reasonable sanitary measures. Yet, so many persons have been and are affected by it that a recital of its more common symptoms may sound like a personal experience record to half the population of the United States. The disease is called epidermophytosis, "athlete's foot," "dhubie itch" and numerous other names which either indicate who gets it, where he gets it, or how he gets it. The infection should rightly be called *dermatophytosis*, which means a skin disease due to a fungus. This is by no means a new disease, yet up to 1918 only about one hundred cases are reported in medical literature.

In 1916, Ormsby and Mitchell in this country presented the subject before dermatologists and clearly indicated that this skin infection was much more common than had been reported; and that every skin disease involving the non-hairy parts of the body, especially those parts whose surfaces pressed against each other, should be considered ringworm until proved otherwise. Since then, skin specialists have unearthed thousands of cases; physicians in general have found that many cases which they have treated as "eczema," "anal itch," "chafing," were really fungus infections due to ringworm. For at least three years, the United States Public Health Service has been broadcasting the statement that every other person in the United States each year is infected with ringworm.

"But why," you ask, "did this infection suddenly become so widespread?" There are four reasons: First, it was probably widespread before the war, but because the actual disease did not resemble ringworm, it was not even suspected except in rare cases; second, with the mobilization of millions of men and women for duty, congested quarters, feet encased in heavy socks and boots, feet soaked with water or perspiration for hours and days, the infection increased rapidly in intensity and spread; third, the ever increasing use of swimming pools with their adjacent shower and locker-room equipment in preparatory schools, colleges, universities, country or town clubs, constantly increased the chance for infected persons to spread the fungus to every surface and everywhere they touched with infected parts of their bodies;

fourth, once the fungus became widely distributed, it spread rapidly to hotels and homes.

The fungus thrives best under conditions of warmth and moisture, hence it is found most generally in the South, and in the North more frequently in summer than in winter, with a maximum rise in September and with May a close second. It is more likely to occur on persons who are high strung and who perspire readily. Using the same index of warmth and moisture, it attacks the skin folds most frequently, particularly between the toes, and especially between the fourth and fifth toes where the skin surfaces are pressed together almost constantly when shoes are worn.

The presence of ringworm fungus on the body does not necessarily mean an active infection of the skin, for the plant is so widespread that it is almost impossible to be free from it. Curiously enough, no break in the skin is necessary for an active infection to take place. Weidman placed cultures of the fungus between the toes which he then bound together for about two days. Infection took place slowly but definitely.

There are at least two important reservoirs on the body in which large numbers of the ringworm spores may remain for months and even years—the spaces between the toes, especially between the fourth and fifth, and the toenails. With this in mind, it is easy to understand how readily one becomes reinfected and with what ease other parts of the body are attacked. In fact, whenever ringworm of other parts of the body appears, these reservoirs should be checked up.

Dr. Arnold suggests that the spaces between the toes are dry in children until shoes are worn, but that when feet are encased, these spaces are constantly moist, and the corneal layers of skin which are being constantly shed in the presence of bacteria result in a cheese-making laboratory—the skin scales taking the place of casein. The odor will vary with the types of bacteria thriving on this alkaline moistened skin surface. This is the soil upon which fungi can grow if seeded in sufficient quantities. It requires careful personal hygienic measures to remove these bacterial cultures and other material from between toes.

The problem does not constitute a public health menace, but rather a personal and public nuisance. This is felt particularly by departments of student health and physical education, for frequently the infection seriously handicaps those who are participating in athletic work.

(Turn to Page 97)

CONTROL!.....



Ewing Gallows

Control is the essential factor in modern railroading. The hand of the engineer on the throttle governs the safety of his human cargo every minute of the run. Control is likewise the essential in the modern insecticide. The quality of your finished product is governed by the degree of control over the raw material achieved by your supplier. Control of Pyrethrum Deterioration is an accomplished fact in PENICK'S PYREFUME SUPER 30.

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Manufacturers for the

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The Greatest Advance in Pyrethrum Manufacture Since Chemical
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Following the standardization of Pyrethrum extracts by chemical assay of the active principles, the next logical step in research was to combat subsequent deterioration. Methods of control had to be devised to prevent loss of toxicity in the stored extract or diluted spray so that its effectiveness would not be lessened before reaching the user.

The main causes of Pyrethrum deterioration were found to be oxidation and hydrolysis. Methods had to be developed to combat these causes before a stabilized extract could be pro-

duced. This is now an accomplished fact in PYREFUME SUPER 30. Our improved method of manufacture now enables us to offer a product which will withstand the effects of oxidation and hydrolysis for an extended period, thus offering a much longer toxic life than other Pyrethrum products being marketed.

We have made control of deterioration a special study in the PENICK laboratories, and have full data to submit to recognized manufacturers of insect sprays.

Chemical Standardization

PYREFUME SUPER 30 is perfectly standardized in our own laboratories by the Tattersfield method to a given Pyrethrin content of 3.375 gms. to each 100 C. C. Diluted with 29 parts of petroleum distillate to 1 part of PYREFUME SUPER 30, it produces a spray of uniform standard strength, representing 1 pound of Pyrethrum Flowers to the gallon.

Remember that—

PYREFUME SUPER 30

1. Is absolutely uniform in strength in each shipment.
2. Shows no sediment on dilution.
3. Has a minimum of inert matter present.
4. Is so manufactured as to resist deterioration.

Killing Power Standardization

Wide manufacturing experience over a period of many years shows that the testing of flowers for Pyrethrins, and then assuming that the finished product will correspond in toxicity—is not dependable. For this reason we confirm the killing power by our improved physiological test. PYREFUME SUPER 30 is checked both chemically and physiologically.

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NEWPORT IMPROVED PINE OILS

IMPART HIGHEST PHENOL
COEFFICIENT TO DISINFECTANTS

PRODUCE GREATER SOLVENT
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Plants: De Quincey, La.—Pensacola, Fla.—Bay Minette, Ala.

Dicyclohexylamin in Fly Sprays

Dicyclohexylamin or other secondary and tertiary amines, which contain at least two cyclohexyl radicles or cyclohexyl homologues in the molecule joined to the nitrogen atom, have been proposed as active ingredients of fly sprays. It is claimed that the insecticidal activity of these substances is very favorable, that their odor is slight and that they are completely non-poisonous to man and animals in the proportions used in making these fly sprays. The latter may be prepared by dissolving eight per cent of dicyclohexylamin in petroleum. Dicyclohexylamin may also be added to pyrethrum fly sprays. Thus a spray, which contains only 0.05 per cent of pyrethrin, may be mixed with 2.5 per cent of dicyclohexylamin, giving a product of much improved properties. German Patent No. 564,923. I. G. Farbenindustrie A. G.

Determining Rotenone in Derris Root

The rotenone content of derris root varies very markedly from a mere trace to as much as 12 per cent. Thick roots are generally richer in rotenone than thin roots. The rotenone is concentrated principally in the woody portion of the root. The method used in determining the rotenone consists in grinding the root until at least 75 per cent of the ground mass passes through number 80 screen (29 meshes per centimeter). The roots should not contain more than ten per cent water (by the xylene method). A 50 gram sample of the pulverized root is extracted for 48 hours in a Soxhlet apparatus with absolute ether. The ether solution is then poured into a centrifuging bottle of 100 cc. capacity. The rotenone, which has been precipitated in the Soxhlet thimble, is removed to the centrifuging bottle and the thimble is carefully washed out with absolute ether. The contents of the centrifuging bottle are evaporated on the water bath down to approximately 25 cc. If the solution is very viscous, it is brought up to approximately 35 cc. with absolute ether. The bottle is then corked and kept for two days at the ordinary temperature and then for an equal period of time in an ice box. Rotenone is precipitated.

The bottle and its contents are centrifuged for two to three minutes in an ice-cooled, metallic holder at a speed of 3500 R.P.M. The solution which is supernatant over the crystals is poured off. The crystals are washed with ten cc. of absolute ether, being stirred around in the ether and then allowed to stand for a few days in an ice box. The mass is then centrifuged again. Then the supernatant ether is poured off and the crystalline mass is dried for five to ten minutes in a vacuum desiccator at 80 degrees C and weighed. The crystals are ground in a mortar and the melting point is determined. If the melting point is less than 120 degrees C, the ether treatment is repeated, ten cc. of ether being used in each retreatment until the melting point attains at least this temperature. If the melting point is above 163 degrees C, then no rotenone is pres-



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A combination Rotenone pyrethrum oil concentrate that will stay in solution—a decided improvement in the field. Sold on a kill basis as high as 85%. With this base manufacturers may improve their product and lower their costs.

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A finished concentrated liquid plant spray sold in bulk for repackaging. Highly effective against mealy bug and red spider. Tested and proven by prominent entomologists.

A complete range of Derris products uniform as to qualities, standardized as to Rotenone content, and sold on this basis. Available in large quantities to manufacturers of insecticides.

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Powdered Root, standardized, is most effective in household powders. For protection of vegetable and fruit crops, powdered Derris Root is not only efficacious but leaves no poisonous residue.

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LIQUID SOAP SUPER-CONCENTRATE

a base that is actually liquid!

SOAP VALUE: Highest possible soap content.

DISPERSION: Dilutes immediately in hot or cold water.

SOLUTION: Crystal clear.

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*This product will save you money, time and labor.
Send for further information, samples and price.*

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Liquid Soap 10% to 60%
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ent. D. R. Koolhaus. *Bull. Jardin Botan. de Buitenzorg*, series III, volume 12, numbers 3/4, 563.

Form Baltimore Sanitary Group

The Manufacturers and Distributors of Sanitary Chemical Specialties of Maryland has been organized in Baltimore to operate under the NRA. Officers include: James F. Beatty, Solarine Co., president; E. H. Goldstone, U. S. Antiseptic Laboratory, executive secretary; and L. B. Baek, corresponding secretary. The code steering committee consists of the above and: J. Glen Tracy; T. H. Sunstrom, Alpha Chemical Co.; E. O. Doeplitz, Kilsem Manufacturing Co.; Melvin Fuld, Fuld Bros.; A. Long, West Co.; and J. C. Stalfort, John C. Stalfort Co. A code has been adopted setting a maximum work week of forty hours and minimum wages of 35c per hour for men and 30c for women. The headquarters of the association are at 123 South Charles Street, Baltimore.

Composition of Commercial Palm Oils

Thirteen palm oils from various districts between Sierra Leone and the Camerons in West Africa were examined. Two main types of oils were found. In the districts east of longitude 4—6° W. the mixed fatty acids have a titre of 44—45° and contain about 40—42 per cent of palmitic, 40—42 per cent of oleic, and 9—11 per cent of linoleic acid, the last-named forming 13—20 per cent the unsaturated acids. The mixed acids of oils from the Ivory Coast and Liberia have a low titre (40—42°) and are made up of less (32—35 per cent) palmitic and more (49—52 per cent) oleic acid; linoleic acid is present to the extent of about 8 per cent and thus forms only 13—14 per cent of the unsaturated acids. Palmitic acid seems to be at a minimum, and oleic acid at a maximum, in oils from the region of Cape Palmas. In the extreme west of the palm oil production area (Sierra Leone), there is again a tendency towards somewhat more palmitic and less oleic acid in the oils, which, however, still remain nearer to the Liberia-Ivory Coast group than to the Gold Coast-Nigeria group in composition. H. K. Dean and T. P. Hilditch. *Journal of the Society of Chemical Industry*, 1933, volume 52, pages 165 to 169T.

J. du P. Langrishe, writing on *Disinfestation and Disinfection* in the *Journal of Hygiene*, Vol. 33, pp. 28-35, reports that contact with dry heat at 55 deg. C. for one hour cannot be relied upon to sterilize infective material; lice and bugs can be easily destroyed by dry heat at 55 deg. C. acting for 30 minutes; infective material (non-sporing organisms) can be disinfected by penetration of dry heat at 50 deg. C., followed by formaldehyde, 5 per cent, allowed to act for 1 hour.

The production and distribution of fish products, including fish oil in United States, has been placed under the control of a newly organized fisheries section of the Agricultural Adjustment Administration. R. H. Fiedler has been made chief of the new section.



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COAL TAR DISINFECTANTS

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TECHNICAL SOLUBLE CRESOLS

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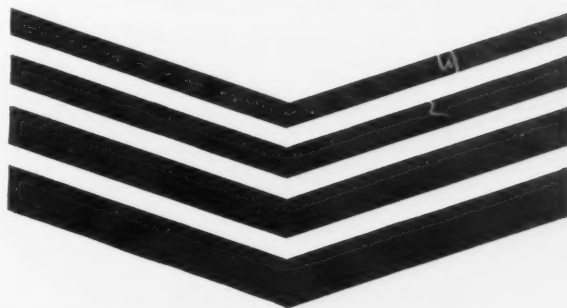
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GARAGE FLOOR CLEANER

An especially designed product for removing dirt and grease from stone and cement floors. Has the advantages of being supplied in concentrated form, economical, quick acting and harmless. Write for further information, sample and price.

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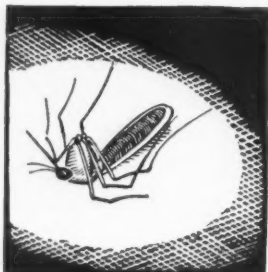


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The Dependable Insecticide

Stable — Certain — Economical

The conscientious manufacturer hesitates to place his name on a product of uncertain strength and stability. Both raw material and finished product must be dependable.

LETHANE 384

permits the manufacture of insecticides with the absolute assurance that the resulting insecticide will retain its full strength no matter how long it may be kept in storage. You can depend upon Lethane 384.

Röhm & Haas Co., Inc.

222 West Washington Square
Philadelphia Pennsylvania

Barrett Company, New York, has opened a new sales office in the Tower Building, Jackson, Miss., in charge of E. S. Barrentine. The office is chiefly for the sale of agricultural products.

A German whaling fleet will be financed by a Hamburg group, according to a report of the Department of Commerce. The object of the fleet will be to engage in whaling for the purpose of supplying oil to Germany's large margarin industry which now imports between 60 and 80 million marks worth of whale oil per year.

Prices of vegetable, fish and whale oils have recently advanced in Germany as the result of a new governmental decree which increase the monopoly fee. In the case of vegetable oils the fee is set at 0.25 reichsmarks per 100 kilos, and the fee on fish and whale oils is advanced from 0.20 to 1.00 reichsmarks per 100 kilos.

Dermatophytosis

(From Page 39)

WHAT can be done to help in the prevention and control of this skin infection? It is obvious that it is impossible to keep man's environment free from this fungus. But there are measures that will help to reduce the volume of the infecting agent. At first thought the control of this infection seems hopeless, for no matter how thoroughly you may rid clothing and surfaces of the fungus, just one infected barefooted person in the shower or locker rooms or about the swimming pool may be enough to reinfest surfaces, bodies and clothing.

Certain it is that it takes the fungus a number of days to grow on the most favorable laboratory culture media. It is just as certain that it takes days to grow in such a favorable human garden plot as that usually found between the fourth and fifth toes. Therefore, since the fungus is readily killed by contact with disinfectant solutions, the plan should be adopted of daily scrubbing or mopping all floors where people are likely to go barefooted with a *disinfecting* solution, and foot-baths should be provided containing these disinfecting solutions at locations where people will be certain to use them and where they will not have to walk far barefooted before using them to prevent re-infection of the floors.

Special disinfectants, which in dilutions in some cases as great as one part to 300 parts of water, will kill the spores in about two minutes, are available. These specially made coal-tar products are the logical thing to use in floor scrubbing solutions and for foot baths in showers, pools, locker rooms, etc. The disinfectant solution should be permitted to remain in contact with the floors for at least two minutes to insure killing the spores, and should not be wiped off the feet for a similar length of time for the same reason. Athlete's Foot is more or less easy to prevent by sanitary care. Its cure, however, after infection has taken place is not always such an easy matter.

HUDSON SPRAYERS

Here's the
CARDINAL
(3-quart continuous sprayer)



If you manufacture a commercial insecticide, and are looking for ways of selling it in volume, consider the correct means of application.

Have you investigated the new Hudson Cardinal Sprayer for commercial insecticides?

It holds 3 quarts. The nozzle is adjustable from a fine vapor down to a solid stream. All nozzle parts are solid brass.

The Hudson Cardinal operates with a minimum of effort. A slow easy pumping develops and maintains a constant head of pressure, producing a continuous spray with no variance in volume.

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BREUER TORNADO
Vapo Steam Sprayer

**Easy to Use—
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 More Capacity—**

The new TORNADO Steam Sprayer provides a steam container jar made of heat resisting glass—not the ordinary, common glass jar.

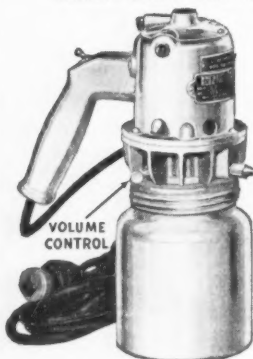
The TORNADO sprays from a few ounces to one quart, giving greater and full capacity with all the safety features.



Adjustable nozzle for spraying at any angle without tilting or upsetting sprayer. Sprays concentrated or regular insecticides. Attractively finished throughout.

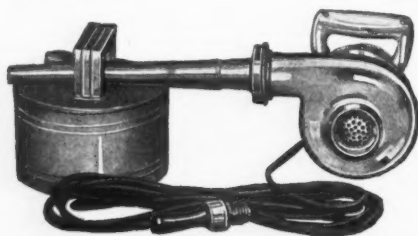
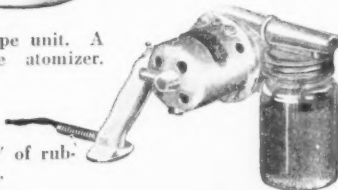
Offer your customers the most modern and efficient vapo steam sprayer, and be assured of increased sales and profit.

*Also Most Complete Line of Electric Sprayers to
 Enable You to Meet Every Spraying Problem*



Model 53 new Compressor Type unit with new adjustable volume control. Will break insecticide into finest mist and gas formation mechanically obtainable. Floats throughout spraying area for many minutes—a truly de luxe model! $\frac{1}{8}$ H.P. G.E. Universal Motor. 1 quart metal container. 20' of rubber covered cable.

Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8' to 10'. $\frac{1}{8}$ H.P. G.E. Universal Motor, 1 pint glass jar. 20' of rubber covered cable.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18' to 20'. $\frac{1}{3}$ H.P. G.E. Universal Motor, Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industrial, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

BREUER ELECTRIC MFG. CO.
 862 Blackhawk Street Chicago, Ill.

We do not sell insecticides. Our business is manufacturing sprayers.



12
PLANTS
to Serve
You

CRESYLIC ACID
CRESOL
CRESOL U. S. P.
XYLENOL
TAR ACID OILS
NAPHTHALENE

... and other Coal Tar
 Chemicals for the

**SOAP and
 DISINFECTANT
 INDUSTRY**

Neilly

TAR & CHEMICAL CORPORATION
 MERCHANTS BANK BLDG., INDIANAPOLIS
 500 Fifth Ave. New York 2513 S. Damen Ave. Chicago

Oil Spraying Emulsions

A miscible oil for making spraying emulsions is usually regarded as a clear solution of emulsifier (a soap or a resinate) in the toxic oil to be emulsified, preparation of the spraying emulsion being accomplished by merely stirring into water. A third substance is necessary to aid in dissolution, and phenol, the cresols and fassel oil are all effective for this purpose. A miscible oil should be a clear (one phase) solution (evidently containing isotropic soap) so that breaking or separation into layers does not occur during storage, and to avoid having to shake previous to actual emulsification. It should give a perfect, stable, non-creaming, oil-in-water type of emulsion on stirring into comparatively large volumes of water, or by stirring large volumes of water into it. It should contain a minimum quantity of aid to dissolution and a maximum quantity of toxic oil, the emulsifier being incorporated in a sufficient but economical amount.

The four ternary systems possible in the system phenol-water-sodium oleate-toluene have been studied with the object of ascertaining the boundaries—important in miscible oil formation—between liquid homogeneity and heterogeneity of some type. The presence of water is necessary to obtain miscible oils containing more than a small percentage of emulsifier, and thus miscible oils of practical utility are four- and not three-component systems as previously thought; the ternary system most worthy of study seems to be that containing the aid to dissolution, water, and emulsifier, and not that contain-

ing the aid to dissolution, emulsifier, and toxic oil, the first system being the starting point for additions of toxic oil. R. M. Woodman. *Journal of the Society of Chemical Industry*, 1933, volume 52, pages 185 to 187T.

Corben Corp., Pasadena, makers of the ant exterminator, "Ant Stik," has appointed Boradori Co. as agents in California and Nevada.

Soap Plant Costs

(From Page 65)

soap is thus obtained. It was found that in a certain brand of toilet soap, the consumption of vegetable oils was 86 pounds per hundred pounds of soap. On the other hand the quarterly inventory showed a consumption of 88 pounds of oils per hundred pounds of soap, the difference being due to losses from raw material to finished product. All kettle boiled soaps undergo such shrinkage, which is caused by the fact that the soap is slightly soluble in the waste lyes run off after each change in the kettle. When the soap can be weighed or measured directly after manufacture in frames or in some other accurate manner, this shrinkage is automatically taken care of.

Thus the first charge in determining the cost of the toilet soap is 88 pounds of oil at $3\frac{1}{8}$ cents per pound or

Insect Murder Is Not A Crime

Get all the "kills" you can by using

BENKERT'S PYRETHRUM

Ground
Powder
Concentrate No. 15
Derris
Red Squills

Will increase both your percentage of kill and your profit.

W. BENKERT & COMPANY, INC.

100 Gold Street

New York City

REPRESENTATIVES

Chicago
Mr. Even M. Tysdal,
325 West Huron St.,
Chicago, Illinois

Detroit
Mr. R. M. Stevenson,
2457 Woodward Avenue,
Detroit, Michigan

St. Louis
Joseph Fahey Brok. Co.,
Cotton Belt Bldg.,
St. Louis, Mo.

What Does It Do?

What Is Its Composition?

Can It Be Improved?

Does It Comply With Specifications?

Does It Comply With Labelling Requirements?

Will It Perform What Is Claimed?

Can We Develop New Uses For Old Products—New Products For Old Needs?

**"NEW DEAL" Competition
Will Place These Questions
In The Center of the Stage**

For Example:—The Disinfectant Code under the NRA, is expected to require a Phenol Coefficient statement on each package of disinfectant.

For over twenty-five years it has been our task to furnish answers to these questions with respect to products in the DRUG, COSMETIC AND DISINFECTANT INDUSTRIES. WHY NOT CONFER WITH US?

PEASE LABORATORIES, INC.

Chemists, Bacteriologists and Sanitarians

39 WEST 38TH STREET

NEW YORK, N. Y.

SOAP BASE

1. Made from highest grade specially treated materials.
2. High soap content.
3. Readily soluble.
4. Reaction neutral.
5. Maximum lather.
6. Supplied in natural, opal, wine and other desired colors—scented or unscented.

DISINFECTANTS

SOLUBLE AND EMULSION TYPES
CO-EFFICIENTS 2 TO 60



FERGUSON LABORATORIES

(Div. of Alex. C. Fergusson Co.)

EST. 1855

24 OREGON AVENUE

PHILADELPHIA, PA.

Our products are guaranteed as to test and quality.

\$2.75 for the cost of oil per hundred pounds of toilet soap. Other raw materials charged are 18 pounds of sodium hydroxide at \$2.75 per hundred pounds or \$0.50 per hundred pounds of soap, 17 pounds of salt at 35 cents per hundred pounds or \$0.06 per hundred pounds of soap. Then there is the manufacturing cost of \$1.32 ($0.88 \times \1.50). The perfume cost is 0.735 pounds of perfuming compound at \$2.35 per pound or \$1.73 per hundred pounds of soap. The manufacturing cost only includes the labor and other charges for making the curd soap and hence there must be added a milling cost. This charge can be determined accurately by obtaining records of the labor spent in making the cost and correctly allocating rent, light, power, and other items of the overhead against the soap. In the particular plant, a fixed charge of 25 cents per hundred pounds of toilet soap is merely made against the soap. The total of all the charges is \$6.61 per hundred pounds of soap. From this must be deducted the credit for glycerin, which is at the rate of 6 pounds of glycerin per hundred pounds of toilet soap made, valued at 3.75 cents per pound, making a total of 22 cents per hundred pounds of soap. The net factory cost is then \$6.39 per hundred pounds of soap.

The soap is cut to weigh 3.75 ounces to the pressed cake, which is wrapped and packed 100 cakes to the box. It is found that 23.5 pounds of soap are required to make 100 cakes of this soap, costing \$6.39 per hundred pounds making a total of \$1.50 per case of 100 cakes. Cardboard inserts cost \$0.04 per case, wrappers \$0.13 per case, case layer \$0.01 and the case \$0.05, making a total factory cost per case of \$1.73.

The cost results are judged against the balance sheet of factory cost operations. At the beginning of a three-month period the purchasing department of this plant uses the raw material inventory plus current prices to figure the average cost on the estimated quantity of oils to be consumed during the ensuing quarter. These average costs are used to set up factory costs on the large number of items manufactured. At the end of the quarterly period, inventory is taken again. The operating department of the plant is credited with the inventory at the end of the period and charged with the inventory at the beginning and all purchases in the usual manner. This gives the cost department's estimated manufacturing expense and theoretically it should balance the actual manufacturing expense. The actual manufacturing expense is supplied by the auditing department from their records of pay roll and other charges. To be on the safe side, the factory costs figured should be a little greater than the actual costs. In this way a positive check is obtained of the accuracy with which the plant manager figures his costs of making the soap and any necessary changes may be made for the coming quarterly period and the prices of the various products increased or decreased as required so that the correct margin of profit may be maintained.

(To be continued)



YOUR INSECTICIDES *kill* AT FULL STRENGTH

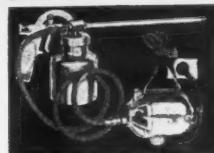


Presto Model 102—Electric Spray Gun

WITH

Presto

ELECTRIC SPRAY GUNS



Presto Model 88-94 Shoulder Strap Electric Spray Gun Outfit.

● Your sales will suffer if killing power is lost in the application of your insecticides and disinfectants.

There is NO danger of lost efficiency with Presto Electric Spray Guns. In fact, the extremely powerful finely vaporized spray gives extra force to penetrate difficult cracks and corners, and hard-to-reach places.

Made in styles and sizes for every purpose. The widespread acceptance of Presto Guns is good evidence of their ability.

For big jobs—the shoulder strap type—Model 88-94 is the answer. Large capacity, yet untiring to use. 12-inch extension nozzle.

For general purpose—the Presto Model 102. All electric. Light, yet sturdy in construction. Pistol grip. Send the coupon for the facts and sales plan today.

● METAL SPECIALTIES MFG. CO.,
3200 Carroll Ave., Chicago, Ill.

Send me full details on Presto Insecticide Guns, and Sales Plan.

Name

Address

City..... State.....

for low cost in para block manufacture



These two practical machines are all you need to produce high quality para blocks or cakes. The small machine on the left will thoroughly mix all ingredients. The large machine on the right will compress the mixture into any shape dies can give.

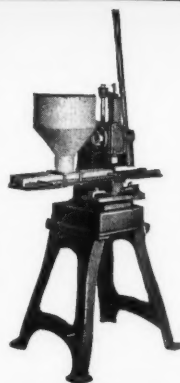
In addition, the mixer can be used on other dry products such as roach powder, cleansers, bath salts, etc. It will also give a smooth, soft and velvety texture to creams.

The hand lever press has more power than cheap foot presses. Inexperienced operators can rapidly turn out fine looking blocks. Send us some of your material and let us show you some specimen cakes. The press will save from 5% to 10% over the hot process.

HUBER MACHINE CO.

259 46th St., Brooklyn, N. Y.

Makers of Good Soap Machinery for Forty Years



"FILMA-SEAL"

(the double seal of cap and film)



We now announce type J "FILMA-SEAL" (patented 1933). Millions of "FILMA-SEALS" are used by nationally known concerns on a great variety of products in combination with our C. T. screw caps.

Type "J" is a complete guard against Counterfeiting, requiring that the FILM be torn off and destroyed to get access to the contents. It is also the tightest seal of its kind, preventing leakage and evaporation.

Economical in cost—Automatically applied.

Write for samples of type J "FILMA-SEAL."

FERDINAND GUTMANN & CO.

Established 1890
BROOKLYN, N. Y.

U. S. Patent and Patents Pending—Trademark Reg.

SOAP POWDER

FLUFFY AND HEAVY

Scouring Powder
and
Detergent

Packed in barrels or kegs.

In bulk to the trade.

STEVENS SOAP CORP.

200 Sullivan St., Brooklyn, N. Y.

CUMberland 6—3747

FLOOR WAX

**LIQUID
PASTE
POWDER**

**New Improved Self-Polishing Liquid Wax
UNDER YOUR OWN LABEL**

We print the label

Send for Samples and Quotations

WINDSOR WAX COMPANY

50 Church Street

REctor 2—0661
Factory: 611-617 Newark St., Hoboken, N. J.

New York, N. Y.

CLASSIFIED ADVERTISING

Classified Advertising—All classified advertisements will be charged for at the rate of ten cents per word, \$2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, \$1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap*, 136 Liberty St., New York.

Note: All advertisements must be in publisher's hands by the first of the month for that month's issue.

Positions Wanted

Chemical Engineer, Soapmaker and Superintendent: Practical experience in boiled and semi-boiled laundry, toilet, textile and shaving soaps. Address Box 256, care *Soap*.

Soap Maker and Chemist: Can make all kinds of soaps. Has long experience in soap business and good record. Desires new connection. Address Box 258, care *Soap*.

Soapmaker and Chemist: With long years' experience and excellent past record as expert in the manufacture of all kinds of soap, desires new connection with progressive concern. Address Box 259, care *Soap*.

Soapmaker: Experienced in manufacture of laundry soaps. Has formula for production of good bar soap costing 2 cents per pound. Address Box 251, care *Soap*.

Soap Plant Manager: Man with many years' experience in complete charge of soap business, manufacture, sale, purchasing, seeks new position. Box 252, care *Soap*.

Superintendent and Expert Soap Maker: 20 years' experience on light color laundry bar and chip soap from cotton oil soap stock. Address Box 253 care *Soap*.

Chemist and Soapmaker: Young man experienced soap, fatty oils and detergent industries, desires new connection. Has had charge of production and laboratory. Address Box 234, care *Soap*.

Cost Accountant: Five years' experience toilet and laundry soaps. Could be of real help to management in small soap business. Address Box 244, care *Soap*.

Soapmaker and Perfumer: On laundry and toilet, soda or potash soaps, all processes; also toilet preparations; Middle West preferred. Address Box 257, care *Soap*.

SOAP MACHINERY

Every item shipped from our shops at Newark, N. J., is thoroughly overhauled and rebuilt before shipment.

SPECIALS

- 1—Soap Chip Dryer, 1200 lb.
- 2—Dopp 650 gal. Steam Jacketed Kettles.
- 1—Dopp 1200 lb. Steam Jacketed Crutcher.
- 1—Hershey 1000 lb. Horizontal Jacketed Crutcher.
- 1—1000 lb. All Steel Soap Powder Mixer.
- 2—Holmes & Blanchard 24" and 36" 4 cage Disintegrators, for grinding soap powder—no screens, no plugging.

- 25—Soap Frames, 60"x45½"x14", with trucks.
- 6—Plodders, Houchin, Rutschman, 4", 4½" double screw, 6", 8", 10".
- 14—Filter Presses, 42"x42" to 12"x12".
- 8—Granite Mills, 3 and 4 roll, 12", 18" and 24".
- 15—Horizontal Mixers, Jacketed and Plain, 15 gal. to 1000 gal.

MISCELLANEOUS—Kettles, Mixers, Pony Mixers, Powder Fillers, Tube Fillers, Labelers, Soap Presses, Soap Wrappers, Tanks, Boilers, Pumps, etc.

Send for Latest Bulletin.

CONSOLIDATED PRODUCTS COMPANY, INC.

15-21 Park Row, N. Y. C. BArcley 7—0600

We buy your idle Machinery—Single items or entire plants.

- Disinfectants
-
- Deodorants
-
- Deodorant Blocks
-
- Deodorant Containers
-
- Insecticides
-
- Roach Powders
-
- Floor Waxes
-
- Floor Seals
-
- Floor Maintenance Products
-
- Soaps
-
- Soap Dispensers
-
- Cleaning Fluids
-
- Polishes

Sanitary Chemicals
for Jobbing Trade

for your paste products —
A REMOVABLE HEAD DRUM



A Trageser removable head drum is the ideal container for any of your bulk paste products—auto soaps, soft soap bases, polishes, textile specialties, fats, greases, etc. The head comes off quickly and makes the container easy to handle.

Trageser drums are built to last. Send for new low prices on 30, 55 and 110 gallon sizes.

JOHN TRAGESER STEAM COPPER WORKS
 Grand Avenue. Maspeth, L. I., N. Y.

PUlaski 5-7700

IF YOU SELL
VITAZONE
 PROCESS
DEODORANTS

—YOU'LL SELL MORE!

Exclusive new perfuming process of PURE PARA—dichlorobenzene under pressure up to EIGHTY TONS produces the VITAZONE DEODORANT BLOCKS.

MORE CONCENTRATED
 MORE EFFICIENT
 MORE ECONOMICAL

Write for Sample, Odors, Sizes and Price for packaging under

YOUR OWN
 LABEL

FULD BROS. Inc

2310 Frederick Ave., Baltimore, Md.

Sanitary Chemicals
 For Jobbing Trade

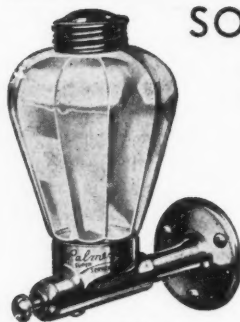
SEFTON Cans
 Save the Difference

Cans for dry products—
 which of these fibre cans fits your needs?

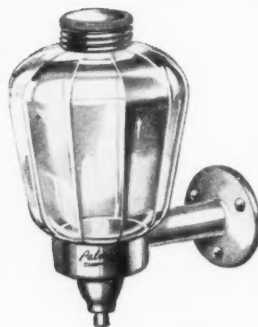
Here are only a few of the many styles, sizes and shapes made to individual specifications, by SEFTON. They are sturdily constructed—will not DENT! Economical in small quantities—large quantities at great savings.

SEFTON NATIONAL FIBRE CAN CO.
 3207 Big Bend Road ST. LOUIS, MO.
 MAPLEWOOD.

SOAP DISPENSERS
 by PALMER



The Palmer
 Super Server



Palmer "D. C."
 Dispenser
 (Dependable Construction)

A type and size dispenser for every requirement—in a complete price range.

An exceptional value is the low-priced push-in type Super Server (left). Metal parts of non-corrosive, stainless, chrome alloy. Bracket in beautiful natural chrome finish. Valve parts easily removable for cleaning. Decagon bowl of crystal glass—opal glass on special order. Large 1-inch opening makes filling easy. (Decagon black bakelite cap.) The lowest-priced push-in dispenser, yet neat, compact, durable.

The Palmer "D. C." Dispenser (left)—lowest priced dispenser ever offered. Fill through large 1-inch top opening without removing or inverting bowl. (Decagon black bakelite cap.) Has simple, positive, spring-controlled valves. Regularly furnished with decagon bowl like Super Server.

We manufacture a complete line of janitor and sanitary supplies. Write for our distributor proposition.

Palmer
PRODUCTS INC
 WAUKESHA, WIS.
 Adjacent to Milwaukee

Superintendent and Experienced Soap Maker desires position. Can make all kinds of soaps and analyze all materials. Address Box 254, care *Soap*.

Chemist and Plant Operator: Sixteen years analytical, research and production experience, including six years glycerine production in large soap plant. Fully acquainted G.P.A. radiator glycerine and production C.P. glycerine by single distillation crude glycerine. Available immediately. Address Box 250, care *Soap*.

Chemist—Young lady with three years' experience with well-known manufacturer of liquid soaps, tooth paste, etc., desires new connection. Address Box 245, care *Soap*.

Positions Open

Salesman Wanted

for an old established manufacturer of textile specialties for the woolen and worsted mills. Requirement, well-experienced practical man, references, commission and drawing account. Fiske, Box 261, care *Soap*.

Soap Chemist: Wanted by eastern soap manufacturer. Degree and minimum of three years' experience in direction of laboratory and handling of development and control work in soap plant required. Give all details as to training, experience, personal qualifications and salary required. Address Box 233, care *Soap*.

Wanted: Soap maker with experience on potash and oil soaps with well-known company located in Chicago. Preferably a man living in Chicago now. Address Box 262, care *Soap*.

Salesmen wanted for textile soap trade in Massachusetts, Rhode Island and Pennsylvania. Address Box 237, care *Soap*.

Soapmaker: Wanted on laundry chips and oil soaps, full knowledge of kettle room and testing of finished products; Middle West. Give age, experience and salary; steady employment for right man. Address Box 236, care *Soap*.

Miscellaneous

Wanted: Small second hand soap grinding machine. Must be in perfect condition and very cheap. Address Charles W. Berg Labs., 1827 N. 5th St., Philadelphia, Pa.

Patents and Trade Marks: Patent and profit by your inventions. Register your trade marks and protect your most valuable assets. Expert personal service. Address Lester L. Sargent, Registered Patent Attorney, 1115 K Street, N. W., Washington, D. C.

PYRETHRUM

● POWDERED

Years of experience and long established selective buying contacts insure the high quality of McCormick's Pyrethrum.

A close examination of McCormick's Powdered Pyrethrum will clearly show uniformly fine particles due to the air flotation process.

● GRANULATED

Analytical and biological tests guarantee the high toxic quality of McCormick's Pyrethrum.

So that the toxic content may be efficiently extracted, all the achenes are broken up in McCormick's granulated Pyrethrum. This allows maximum extraction.

● CONCENTRATED OIL EXTRACTS

Expert supervision of rigidly controlled methods insures known killing power in McCormick's Pyrethrum.

The base for McCormick's Oil Extract is a Petroleum Oil that has been refined to complete freedom from any kerosene odor.

Standardized Liquid and Dust Pyrethrum Insecticides

McCORMICK & CO., Inc.
● BALTIMORE, MARYLAND ●

ZIP-ON

LIQUID FLOOR WAX

No Rubbing

No Polishing

Here's a tip—

Jobbers who originally considered ZIP-ON "just another item" now tell us ZIP-ON is one of the fastest selling numbers in their line,—and one of the most profitable.

ASK US WHY
SAMPLE ON REQUEST

Shawmut Specialty Co.

89 Bickford St.

Boston, Mass.

found money

If you are not using Vioflor you are throwing away 40% to 70% of your cost for perfuming insecticides, naphthas, polishes, inks, para-blocks, etc

Without changing the odor effect now in your product!

It takes but a few minutes to demonstrate this.

Allow us to submit samples and further details.

Manufactured by CREPIN & DOUMIN, Ltd.,
London, England

Sold in the United States and Canada by

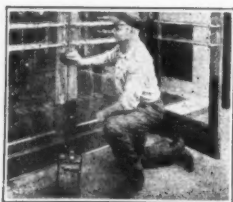
JOHN POWELL & CO., Inc.

114 East 32nd Street :: :: New York, N. Y.



TROJAN TRIPLE - ACTION METAL POLISH

will double your polish business



Trojan metal polishes, packed under your own label, will double your metal polish business because consumers can't resist these new 1933 features. In the first place, they are made in a variety of colors. Secondly, they are available in the following grades as desired by your customer—fast dry, medium dry, slow dry, heavy body, thin body, medium body. They quickly produce a brilliant lustre on all kinds of metal. Prices are rock-bottom—send for a generous test sample.

**TROJAN PRODUCTS
& MANUFACTURING CO., INC.**

3101-07 S. Wabash Ave.

Chicago, Ill.



**DOWN
GOES
PUBLIC
COMFORT'S
ENEMY
No. 1.**

*Chlorozif
Kills Germ Odors*

Mike-Robe and his gang of odors have terrorized their last toiletroom. CHLOROZIF, the powerful Germicide-Deodorant thumbs a new deal for health and comfort and thumbs its chemical nose at foul odors. CHLOROZIF leaves NO odor.

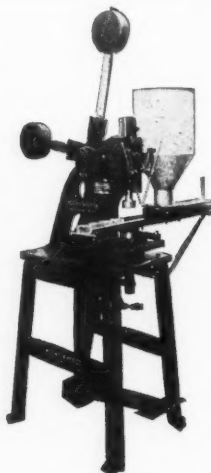
FULD BROS., INC.
2310 FREDERICK AVE.
BALTIMORE, MARYLAND



FULD MAKES It For The LEADERS

HOUCHIN

*Machine-Made
DEODORIZING
BLOCKS
Sell Best!*



Blocks made with this press, by the new cold pressed method, sell better and cost much less to make. Save 5% of your raw material, cut labor, and make a smooth, even, deodorizing block that will please your customers much more than the old style, irregular blocks. Complete cost details and manufacturing suggestions on request.

*Let us make some sample
cakes with your own material.*

**HOUCHIN MACHINERY COMPANY
HAWTHORNE NEW JERSEY**

SOAP MACHINERY

For Sale: 4 Battery Paint Mills, with detachable clutches (Waterville Mfg. Co.); Day Dough Mixer; 100 Wooden Soap Racks, 17 x 36; Soap Cutting Table (Houchin) with cutting frames; 6 removable steel soap frames, 1,200 lbs.; Hand Slabber (steel); Foot Press with assorted dies for soap pressing, in excellent condition. Reasonable. Address Box 260, care *Soap*.

For Sale: There is much surplus equipment available for sale by manufacturers and others, but it remains unsold because nobody knows that it is available. Use a classified advertisement in *Soap* to turn such surplus materials and equipment into cash.

NOTE: The publishers of *Soap* have received an exceptionally large number of requests for copies of the April, 1932, issue of this publication, which contains the complete outline and method of the Peet-Grady Test for liquid insecticides. Stocks of that issue have been completely exhausted for over a year and consequently copies cannot be supplied. It is expected that the Peet-Grady Test procedure will be republished in an early issue of *Soap*. We cannot, however, guarantee that single copies will be available for non-subscribers. If you are not a regular paid subscriber, we suggest entering a subscription now as the best guarantee that you will secure a copy. Missing important issues is usually the lot of the non-subscriber or purchaser of occasional copies.

—THE PUBLISHERS.

REBUILT EQUIPMENT Soap Machinery Specials

- 1—Proctor Soap Chip Dryer, complete.
 - 4—6, 8 and 10 in. H. A. Plodders.
 - 2—Tube Fillers, motor driven.
 - 2—Tube Closers and Clippers.
 - 1—5 Roller Steel Mill.
 - 1—Ralston Power Soap Press.
 - 2—Broughton Mixers.
 - 6—1200 lb. Frames.
 - 2—Foot Para Block and Soap Presses.
 - 1—Houchin Amalgamator.
 - 3—Dopp and Houchin Vertical Crutchers.
 - 1—1500 lb. Horizontal Crutcher.
 - 2—Granite Stone Mills, 3 and 4 rolls.
 - 4—Soap Powder Grinders.
- Cutting Tables, Slabbers, Kettles, Pumps, Tanks, Filter Presses, Wrapping Machines, Tube Fillers, Closers, Crimpers, Dry Powder Mixers, etc.

Send for Complete List (Bulletin No. 10)

We buy and sell from single items
to complete plants.

Stein-Brill Corporation

183 Varick Street

New York, N. Y.

Phone:

Cable Address:

WALKER 5-6892-3-4

"BRISTEN"

KLEENWELL LIQUID GLOSS WAX

is making profits for jobbers!

Here is the modern treatment for floors—Kleenwell Liquid Gloss Wax—can be applied with a mop or cheese cloth rag; dries quickly and gives a fine bright polish without rubbing; non-inflammable and non-explosive; protects the surface; prolongs the life of floors. Add it to your line NOW.

* Kleenwell Liquid Gloss Wax has been approved by leading linoleum, rubber and composition floor manufacturers.

*Send for a generous testing
sample and new low price!*

CHICAGO SANITARY PRODUCTS CO.
2526 W. CONGRESS STREET
CHICAGO, ILL.

We Manufacture For The Trade ONLY

Liquid Soap Base
Auto Soaps
Potash Oil Soap
Shampoo
U.S.P. Cresol Compound
Coal Tar Disinfectants
Liquid Soap
Pine Oil Soap
U.S.P. Green Soap
Shampoo Base
Pine Oil Disinfectants
Insecticides

Ask for samples of these specialty bulk products

HARLEY SOAP CO.
2852 E. Pacific St. Philadelphia

Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products

NOTE: This is a classified list of the companies which advertise regularly in *Soap*. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 112, for page numbers. "Say you saw it in *SOAP*."

ALKALIES

American Cyanamid & Chemical Corp.
Columbia Alkali Co.
Hooker Electrochemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Stauffer Chemical Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

General Chemical Co.
Grasselli Chemical Co.
Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Mechling Bros. Chemical Co.
Monsanto Chemical Co.
Newport Chemical Works
Niagara Alkali Co.
Philadelphia Quartz Co.
Solvay Sales Corp.
Standard Silicate Co.
Stauffer Chemical Co.
Swann Chemical Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

Dodge & Olcott Co.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Maybee & Reynard, Inc.
Monsanto Chemical Co.
Naugatuck Chemical Co.
Newport Chemical Works
Sherka Chemical Co.
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid oil, etc.)

American Cyanamid & Chemical Corp.
Baird & McGuire, Inc.
Barrett Co.
Koppers Products Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

BULK AND PRIVATE BRAND PRODUCTS

An-Fo Manufacturing Co.
Baird & McGuire, Inc.
Chemical Supply Co.
Chicago Sanitary Products Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Fergusson Laboratories
Fuld Bros.
Harley Soap Co.
J. L. Hopkins & Co.
Hull Co.
Koppers Products Co.
Kranich Soap Co.
National Oil Products Co.
New York Soap Corp.
Palmer Products
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
Sennewald Drug Co.
Shawmut Specialty Co.
Stevens Soap Corp.
Trojan Products & Mfg. Co.
U. S. Sanitary Specialties Corp.
White Tar Co.
Windsor Wax Co.

CONTAINERS

Continental Can Co. (Tin Cans)
Maryland Glass Corp. (Bottles)
Metal Package Corp. (Tin Cans)
National Collapsible Tube Co. (Tubes)
Owens-Illinois Glass Co. (Bottles)
Sefton National Fibre Can Co. (Fibre Cans)
William Vogel & Bros. (Tin Cans)

DEODORIZING BLOCK HOLDERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products, Inc.
U. S. Sanitary Specialties Corp.
William Vogel & Bro.

ESSENTIAL OILS

Dodge & Olcott Co.
P. R. Dreyer, Inc.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Maybee & Reynard, Inc.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

(Continued on Page 110)

CHEMICALS

American Cyanamid & Chemical Corp.
Bowker Chemical Co.
Columbia Alkali Co.
E. I. du Pont de Nemours & Co.

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used to do by perspira-
tion.



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wipes it off. Underneath the metal is dazzling bright.
No more tarnish, no mess, AND NO RUBBING! And
the shine lasts longer because this new mild chemical
giant does not etch or scratch the surface.

Write for prices and samples.

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RAW MATERIAL and EQUIPMENT GUIDE

(Continued from page 108)

NOTE: This is a classified list of the companies which advertise regularly in *Soap*. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 112, for page numbers. "Say you saw it in *SOAP*."

MACHINERY

Blanchard Machine Co. (Soap Powder)
Ertel Engineering Co. (Liquid Handling)
Anthony J. Fries (Soap Dies)
B. F. Gump Co. (Barrel Packers)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
Illinois Steel Co. (Stainless Steel)
R. A. Jones & Co. (Automatic Soap Presses
and Cartoning Machinery)
Proctor & Schwartz (Dryers)
Stokes & Smith Co. (Packaging Machinery)
Struthers-Wells Co. (Process)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.
Stein-Brill Co.

METAL CAPS

Anchor Cap & Closure Corp.
Crown Cork & Seal Co.
Ferdinand Gutmann & Co.

MISCELLANEOUS MATERIALS

Baker Castor Oil Co. (Polish Base)
Derris Inc. (Derris Products)
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
National Oil Products Co. (Sulfonated Oils)
Pylam Products Co. (Lathering Agent)
Rohm & Haas Co. (Insecticide Base)

OILS AND FATS

Industrial Chemical Sales Co.
Leghorn Trading Co.
Newman Tallow & Soap Machinery Co.
Theobald Annual By-Products Refinery
Welch, Holme & Clark Co.

PARADICHLORBENZENE

E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Solvay Sales Corp.

PERFUMING COMPOUNDS

Dodge & Olcott Co.
P. R. Dreyer, Inc.
Felton Chemical Corp.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Maybee & Reynard, Inc.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

PETROLEUM PRODUCTS

Anderson-Pritchard Oil Corp.
L. Sonneborn Sons

PYRETHRUM PRODUCTS

(Insect Flowers, Powder and Pyr. Ext.)

An-Fo Mfg. Co. (Extract)
W. Benkert & Co.
J. L. Hopkins & Co.
McCormick & Co.
McLaughlin, Gormley, King Co.
S. B. Penick & Co.
John Powell & Co.

SOAP COLORS

Fezandie & Sperrle
Interstate Color Co.
Pylam Products Co.

SOAP DISPENSERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products
U. S. Sanitary Specialties Co.

SODIUM SILICATE

American Cyanamid & Chemicals Corp.
General Chemical Co.
Grasselli Chemical Co.
Mechling Bros. Chemical Co.
Philadelphia Quartz Co.
Standard Silicate Co.

SPRAYERS

Breuer Electric Mfg. Co.
Electric Sprayit Co.
Hudson Mfg. Co.
Lowell Sprayer Co.
Metal Specialties Mfg. Co.
U. S. Sanitary Specialties Corp.
William Vogel & Bros.

STEEL CONTAINERS

John Trageser Steam Copper Works (Pails and Drums)
Wilson & Bennett Mfg. Co. (Pails and Drums)

TRI SODIUM PHOSPHATE

American Cyanamid & Chemicals Corp.
Bowker Chemical Co.
General Chemical Co.
Grasselli Chemical Co.
Swann Chemical Co.
Victor Chemical Works
Warner Chemical Co.

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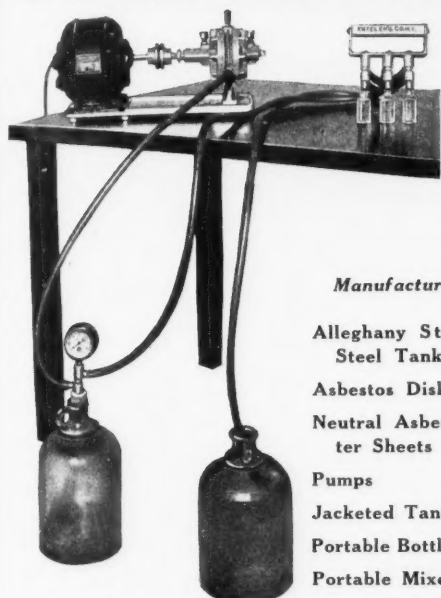
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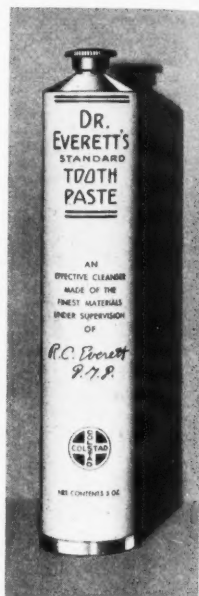
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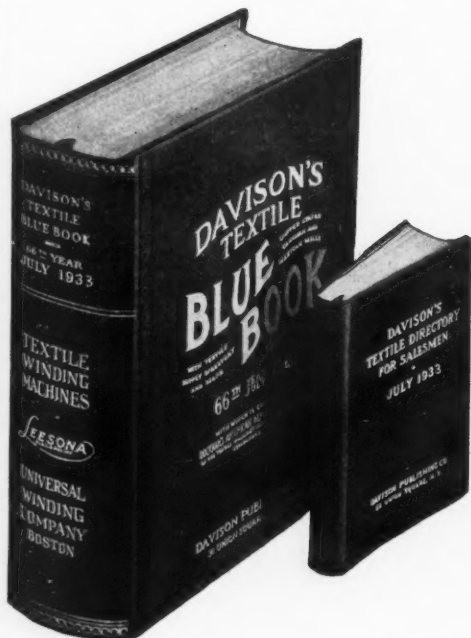
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Caustic Potash
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